# GOLDMAN, SACHS & CO. WERTPAPIER GMBH

Frankfurt am Main, Germany (the "Issuer")

### **Base Prospectus**

for Securities

(issued in the form of Certificates, Notes or Warrants)

unconditionally guaranteed by

The Goldman Sachs Group, Inc.

**United States of America** 

(the "Guarantor")

Goldman Sachs Bank Europe SE

(the "Offeror")

The date of this Base Prospectus is 3 February 2023

No Sales to United States Persons. Neither the Securities nor the Guarantee in respect of the Issuer's obligations in relation to the Securities has been or will be registered under the United States Securities Act of 1933, as amended (the "Securities Act"), and neither the Securities nor the Guarantee may be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, as defined in Regulation S under the Securities Act, except in certain transactions exempt from or not subject to the registration requirements of the Securities Act.

This Base Prospectus does not constitute an offer to subscribe for or purchase any Securities of the Issuer. Nor does it constitute an invitation to make such an offer. Neither this Base Prospectus nor any other information given in connection with any Securities of the Issuer should be construed as a recommendation by the Issuer or the Guarantor to subscribe for or acquire such Securities.

No person has been authorised by the Issuer to provide any information or representations with respect to the Issuer that goes beyond or differs from the information contained in this Base Prospectus. Where such information is provided, it should not be assumed that it is authorised by the Issuer.

This Base Prospectus may only be used for the purposes for which it was prepared. This Base Prospectus may not be used for the purposes of an offer of Securities of the Issuer in any jurisdiction where such offer is inadmissible or to any person to whom such offer is inadmissible. Any person into whose possession this Base Prospectus comes must inform themselves of, and comply with all applicable legal restrictions relating to the use of this Base Prospectus.

This Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) of Goldman, Sachs & Co. Wertpapier GmbH dated 3 February 2023 (as supplemented from time to time) is the successor base prospectus for the following base prospectuses within the meaning of Article 8(11) sentence 1 of the Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017:

- Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) of Goldman, Sachs & Co. Wertpapier GmbH dated 8 July 2020
- Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) of Goldman, Sachs & Co. Wertpapier GmbH dated 10 February 2021
- Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) of Goldman, Sachs & Co. Wertpapier GmbH dated 9 February 2022

### TABLE OF CONTENTS

I. G	ENERA	L DESCRIPTION OF THE PROGRAM9
1	. Subject	of this Base Prospectus9
2	. Inform	ation about the Issuer and the Guarantor9
3	3. Offeror	· and financial intermediaries9
4	l. Inform	ation on the issued Securities10
5	5. Listing	and trading10
6	. Public	offer of securities under the programme10
7	. Reason	s for the offer10
8	B. Using t	he Base Prospectus in Switzerland10
II. I	RISK FA	CTORS12
1	. Risk	x factors in connection with the Issuer12
2		x factors in connection with the Guarantor12
3		x factors associated with the product structure of the Securities13
	3.1.	Product No. 1. Risk factors applicable to Bonus Securities13
	3.2.	Product No. 2. Risk factors applicable to Capped Bonus Securities13
	3.3.	Product No. 3. Risk factors applicable to Discount Securities14
	<i>3.4</i> .	Product No. 4. Risk factors applicable to Reverse Convertible Securities15
	<i>3.5.</i>	Product No. 5. Risk factors applicable to Barrier Reverse Convertible
	Securit	ies17
	<i>3.6.</i>	Product No. 6. Risk factors applicable to Reverse Bonus Securities19
	<i>3.7.</i>	Product No. 7. Risk factors applicable to Capped Reverse Bonus Securities.21
	<i>3.8.</i>	Product No. 8. Risk factors applicable to Open End Securities22
	3.9.	Product No. 9. Risk factors applicable to Plain Warrants24
	3.10.	Product No. 10. Risk factors applicable to Discount Warrants24
	3.11.	Product No. 11. Risk factors applicable to Mini Future Warrants or Turbo
	Certific	cates
	3.12.	Product No. 12. Risk factors applicable to Turbo Warrants31
	3.13. Trader	Product No. 13. Risk factors applicable to Open End Turbo Warrants or Certificates34
	<i>3.14</i> .	Product No. 14. Risk factors applicable to Factor Warrants39
	3.15.	Product No. 15. Risk factors applicable to Down & Out Put Warrants45
	3.16.	Product No. 16. Risk factors applicable to Up & Out Call Warrants46

4.	Kisk	factors in relation to the type of the Underlying and/or Basket Component
	4.1.	Risks associated with Indices as Underlying or Basket Component47
	4.2. or Bask	Risks associated with Shares or Securities representing Shares as Underlying et Component50
	4.3. Basket	Risks associated with Exchange Traded Funds (ETFs) as Underlying or Component52
	4.4. Compon	Risks associated with Foreign Exchange Rates as Underlying or Basket
	4.5. for Com	Risks associated with Commodities, Commodity Indices or Futures Contracts amodities as Underlying or Basket Component57
	4.6.	Risks associated with Futures Contracts as Underlying or Basket Component
5. Co		factors which apply to all or several types of Underlyings and/or Basket
	5.1. the perf	Risks due to the dependency of the market value or return on the Securities on formance of the Underlying or Basket Components66
		Risk arising from decisions taken at the Issuer's or the Calculation Agent's ble discretion in the event of adjustments, market disruptions or extraordinary tion67
	<i>5.3.</i>	Risk in connection with the regulation and reform of benchmarks69
	5.4. calculat	UK Regulators will no longer persuade or compel banks to submit rates for ion of IBORs; the interest rate benchmark could be discontinued71
	5.5. rates'	Risks relating to differences in methodologies between IBORs and 'risk-free
	5.6. and pote	Risks relating to the developing markets for SONIA, SOFR, €STR and TONA ential impact on performance and returns74
	<i>5.7.</i>	Certain risks related to the Secured Overnight Financing Rate75
	<i>5.8.</i>	Risks associated with investments in emerging markets77
	<i>5.9</i> .	Risks specific to a Basket as Underlying
6.	Risk	factors arising from the Condition of the Securities79
	<i>6.1</i> .	Risks related to an extraordinary termination of the Securities80
	<i>6.2</i> .	Risks related to an ordinary termination of the Securities80
	<i>6.3</i> .	Risks related to a Change in Law81
	6.4.	Risks related to the occurrence of a Hedging Disruption82
	6.5.	Risks in connection with the physical delivery82

6.6. different	Risks in connection with payments under the Securities made in a current from the currency of the Underlying and/or Basket Component	-
6.7.	Risks related to a termination of the Securities in the course of correction	ıs,
7.2.	Risk related to the liquidity of the Securities	86
7.3.	Risk related to the pricing of the Securities	87
<i>7.4</i> .	Risks related to conflicts of interest relating to the Underlying	88
7.5.	Risks in the case of Securities cleared through CREST	89
Risks	factors associated with tax and regulation of the Securities	91
<i>8.1</i> .	Risks due to changes in tax law	91
	r any of its affiliates and consequences under the U.S. Special Resolution	on
J		
9.1.	• •	
9.2.	Conflicts of interest in connection with commission payments	94
9.3.		
9.4. connecti	Conflicts of interest relating to the various functions of Goldman Sachs	in
9.5.	Interests of third parties involved in the issue	96
NFORM.	ATION ABOUT THE SECURITIES	98
General	Information about the Securities	98
1.1 Inter	ests of individuals or legal entities involved in the issue	98
1.3 Appl	- licable law1	01
1.5 Clea	ring Systems and form and delivery1	02
1.6 Desc	cription of the rights attached to the Securities, exercise procedure an	nd
-	•	
	different 6.7. supplem Risk 7.1. the curre 7.2. 7.3. 7.4. 7.5. Risks 8.1. 8.2. Issuer o Regimes Risk curity He 9.1. 9.2. 9.3. FORM General 1.1 Inter 1.2 Desc 1.3 Appl 1.4 Curr 1.5 Clea 1.6 Desc consequent	different from the currency of the Underlying and/or Basket Component

1.8 Cla	assification and Ranking of the Securities106					
1.9 Res	1.9 Resolutions in respect of the issue of the Securities					
1.10 R	1.10 Reasons for the offer and use of proceeds from the sale of the Securities					
1.11 C	onditions of the offer, Offeror and Issue Date of the Securities106					
1.12 Pricing of the Securities and factors influencing the price of the Secu 1.13 Listing and trading						
					1.15 In	ndication of Yield108
					1.16 P	ublication of post-issuance information108
2. Explan	ation of mechanism of Securities108					
2.1	Product No. 1. Explanation of mechanism of Bonus Securities108					
2.2	Product No. 2. Explanation of mechanism of Capped Bonus Securities110					
2.3	Product No. 3. Explanation of mechanism of Discount Securities111					
2.4	Product No. 4. Explanation of mechanism of Reverse Convertible Securities					
2.5 Securi	Product No. 5. Explanation of mechanism of Barrier Reverse Convertible ties114					
2.6	Product No. 6. Explanation of mechanism of Reverse Bonus Securities115					
2.7	Product No. 7. Explanation of mechanism of Capped Reverse Bonus Securities					
2.8	Product No. 8. Explanation of mechanism of Open End Securities117					
2.9	Product No. 9. Explanation of mechanism of Plain Warrants118					
2.10	Product No. 10. Explanation of mechanism of Discount Warrants121					
2.11 Certific	Product No. 11. Explanation of mechanism of Mini Future Warrants or Turbo cates					
2.12	Product No. 12. Explanation of mechanism of Turbo Warrants125					
2.13	Product No. 13. Explanation of mechanism of Open End Turbo Warrants or					
Trader	Certificates127					
2.14	Product No. 14. Explanation of mechanism of Factor Warrants128					
2.15	Product No. 15. Explanation of mechanism of Down & Out Put Warrants 130					
2.16	Product No. 16. Explanation of mechanism of Up & Out Call Warrants131					
IV. GENER	AL CONDITIONS133					
Section 1	(Security Right, Status, Guarantee, Definitions)135					
Section 2	(Exercise)139					
Section 3 (Settlement)						

S	ection 4 (Coupon)1	57
Se	ection 5 (Barrier Event)1	61
Se	ection 6 (Knock-Out Event)1	62
Se	ection 7 (Stop-Loss Event)1	66
Se	ection 8 (Adjustment of Strike)1	66
Se	ection 9 (Adjustment of Multiplier)1	72
Se	ection 10 (Adjustment of Knock-Out Barrier)1	<b>78</b>
Se	ection 11 (Adjustment of Stop-Loss Barrier)1	80
	ection 12 (Ordinary Termination Right of the Issuer; Termination Right following hange in Law Event)1	-
Se	ection 13 (Transferability, Security Holder)1	85
Se	ection 14 (Agents)1	88
Se	ection 15 (Substitution of Issuer)1	88
Se	ection 16 (Further Issuances of Securities, Purchase of Securities, Cancellation)1	90
Se	ection 17 (Notices)1	90
Se	ection 18 (Modifications)1	92
Se	ection 19 (Governing Law, Place of Jurisdiction, Process Agent)1	96
Se	ection 20 (Severability)1	97
Se	ection 21 (Prescription)1	97
A	nnex to the General Conditions - Underlying Specific Provisions1	99
	Annex to General Conditions - Share Linked Provisions2	00
	Annex to General Conditions - Index Linked Provisions2	30
	Annex to General Conditions - FX Linked Provisions2	60
	Annex to General Conditions - Commodity Linked Provisions2	<b>78</b>
	Annex to General Conditions - Futures Contract Linked Provisions3	05
	Annex to General Conditions - Standard form of Renouncement Notice (Itali Listed Securities)	
V. F	ORM OF ISSUE SPECIFIC TERMS3	25
Pe	art A - Product specific terms3	25
	Product No. 1. Product specific terms applicable to Bonus Securities3	25
	Product No. 2. Product specific terms applicable to Capped Bonus Securities3	27
	Product No. 3. Product specific terms applicable to Discount Securities3	29
	Product No. 4. Product specific terms applicable to Reverse Convertible Securities3	31

Product No. 5. Product specific terms applicable to Barrier Reverse Securities	
Product No. 6. Product specific terms applicable to Reverse Bonus Securit	ties334
Product No. 7. Product specific terms applicable to Capped Reverse Bon	
Product No. 8. Product specific terms applicable to Open End Securities	337
Product No. 9. Product specific terms applicable to Plain Warrants	340
Product No. 10. Product specific terms applicable to Discount Warrants	342
Product No. 11. Product specific terms applicable to Mini Future Warra Certificates	
Product No. 12. Product specific terms applicable to Turbo Warrants	346
Product No. 13. Product specific terms applicable to Open End Turbo Trader Certificates	
Product No. 14. Product specific terms applicable to Factor Warrants	350
Product No. 15. Product specific terms applicable to Down & Out Put Wat	rrants352
Product No. 16. Product specific terms applicable to Up & Out Call Warra	<i>unts</i> 354
Part B - General terms	355
VI. GUARANTEE	378
VII. IMPORTANT INFORMATION ABOUT THE ISSUER	384
VIII. IMPORTANT INFORMATION ABOUT THE GUARANTOR	385
IX. FORM OF FINAL TERMS	386
X. TAXATION	398
XI. SELLING RESTRICTIONS	405
XII. GENERAL INFORMATION	430
1. Responsibility for the information in this Base Prospectus	430
2. Information from third parties	430
3. Approval by the competent authority	430
4. Availability of the Base Prospectus	430
5. Consent to use the Prospectus	431
6. Information incorporated by reference	432
7. Continuation of the public offer and increases of Securities	443

#### I. GENERAL DESCRIPTION OF THE PROGRAM

The following information constitutes a general description of the offering programme pursuant to Article 25(2)(b) of the Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 as amended from time to time (the "**Delegated Regulation**") and does not claim to be exhaustive. Complete information about the Issuer, the Guarantor and the offer of the Securities is therefore only available on the basis of the combination of (i) this Base Prospectus, including any supplements to this Base Prospectus and (ii) the respective final terms of the offer as drawn up in connection with the Securities (the "**Final Terms**") together with the summary for the individual issue (the "**Issue Specific Summary**").

#### 1. Subject of this Base Prospectus

This Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 3 February 2023 (the "**Base Prospectus**") has been drawn up in accordance with Article 8 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 as amended from time to time (the "**Prospectus Regulation**") in conjunction with Article 15 and Annexes 14, 17, 21 and 22 of the Delegated Regulation.

The information in this Base Prospectus is supplemented, corrected or clarified by way of future supplements under the conditions as laid out in Art. 23 of the Prospectus Regulation. Therefore, when investing in the Securities, an investor should take into account any supplements published on the websites www.gs.de/en and/or www.gsmarkets.at/en under the sections "About us", "Documents" and "Base Prospectus". If the Securities issued under this Base Prospectus relate to an offer to the public, investors who have already agreed to purchase or subscribe for the Securities before the supplement is published shall have the right to withdraw their acceptances within three working days in accordance with Art. 23 (2a) of the Prospectus Regulation. If the Securities are acquired or subscribed through a financial intermediary, that financial intermediary will assist investors in exercising their right to withdraw acceptances.

#### 2. Information about the Issuer and the Guarantor

Goldman, Sachs & Co. Wertpapier GmbH ("GSW" or the "Issuer") as issuer of the Securities is a company with limited liability (*Gesellschaft mit beschränkter Haftung*) incorporated under the laws of Germany. It has its seat in Frankfurt am Main, Germany.

The Goldman Sachs Group, Inc. ("**GSG**" or the "**Guarantor**) is acting as Guarantor under the Securities. GSG is organised in the State of Delaware in the United States as a corporation pursuant to the Delaware General Corporation Law, having unlimited duration and registration number 2923466.

The Guarantor assumes the unconditional and irrevocable guarantee for the payment of the Settlement Amount and any other amounts payable by the Issuer under the Securities.

#### 3. Offeror and financial intermediaries

The Securities issued by GSW will be offered by Goldman Sachs Bank Europe SE, Marienturm, Taunusanlage 9-10, 60308 Frankfurt am Main (the "**Offeror**").

If and to the extent this is so expressed in the applicable Final Terms and provided that the Base Prospectus is still valid according to Article 12 of the Prospectus Regulation, the Issuer may consent to the use of the Base Prospectus and the applicable Final Terms for the subsequent resale or final

placement of Securities by financial intermediaries in relation to the offer state(s) during which the relevant offer period during which subsequent resale or final placement of the Securities can be made.

#### 4. Information on the issued Securities

The Securities issued under this Base Prospectus are issued in the form of certificates, notes or warrants. The Securities have the characteristic such that the level of the settlement amount or, in the case of a physical delivery, the equivalent value of the delivered Underlyings and/or Basket Components and, if relevant, the time of the settlement and/or the amount or the payment of a coupon amount depend on the development of the underlying and/or basket components. The Securities may be linked to Indices, Shares or Securities representing Shares, Shares of an Exchange Traded Fund, Foreign Exchange Rates, Commodities or Futures Contracts as Underlying or (in the case of a Basket as Underlying) as Basket Component.

#### 5. Listing and trading

The Issuer may introduce or apply for admission of the Securities to one or more stock exchange(s) or multilateral trading system(s) or regulated or unregulated market(s), e.g. on the Frankfurt Stock Exchange, the Stuttgart Stock Exchange or the Luxembourg Stock Exchange. The Issuer may also issue Securities which are not admitted to trading or listed on any market.

#### 6. Public offer of securities under the programme

The Securities issued under this Base Prospectus may be publicly offered in the relevant offer states during the relevant offer period, as determined in the applicable Final Terms. The validity of this Base Prospectus expires twelve months after the approval of this Base Prospectus (6 February 2024). The obligation to supplement the Base Prospectus in the event of significant new factors, material mistakes or material inaccuracies does not apply when the Base Prospectus is no longer valid.

In the case of an offer period which exceeds the duration of the validity of the Base Prospectus, such public offer may be continued on the basis of one or more succeeding base prospectuses until the end of the respective offer period, to the extent such succeeding base prospectuses envisage a continuation of the public offer of the Securities. In this context, these Final Terms are, in each case, to be read in conjunction with the most recent Succeeding Base Prospectus.

#### 7. Reasons for the offer

The proceeds from the Securities are used to hedge the payment obligations arising from the issuance of the Securities pursuant with agreement with Goldman Sachs International and for purposes of the Issuer's ordinary business activities (in any case the Issuer is free in the use of the proceeds of an issue of Securities).

#### 8. Using the Base Prospectus in Switzerland

The Base Prospectus may be (i) registered in Switzerland with the reviewing body (*Prüfstelle*) SIX Exchange Regulation Ltd or another reviewing body approved by the Swiss Financial Market Supervisory Authority FINMA as a foreign prospectus that is also deemed to be approved in Switzerland pursuant to Article 54 para. 2 of the Swiss Federal Act on Financial Services ("**Financial Services Act**"; "**FinSA**") for inclusion on the list of approved prospectus pursuant to Article 64 para. 5 FinSA, (ii) deposited with this reviewing body and (iii) published pursuant to Article 64 FinSA.

In accordance with Article 36 para. 4 lit. b FinSA, the Issuer consents, to the extent and under the conditions, if any, as specified in the relevant Final Terms, to the use of the Base Prospectus and the relevant Final Terms by any financial intermediary specified in the relevant Final Terms under "Consent to use of Prospectus" for publicly offering the Securities on the basis of and in accordance with the Base Prospectus and the relevant Final Terms.

The Securities do not constitute a collective investment scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes ("CISA"). The Securities are neither subject to the authorisation nor to the supervision by the Swiss Financial Market Supervisory Authority FINMA and investors do not benefit from the specific investor protection provided under the CISA. Investors should be aware that they are exposed to the credit risk of the Issuer and the Guarantor respectively.

#### II. RISK FACTORS

The purchase of Securities of the Issuer is subject to risks.

Potential purchasers of Securities issued under this Base Prospectus should carefully consider the specific material risks relating to the securities, the Issuer and the Guarantor described in this Base Prospectus prior to investing in the Securities, taking into account all other information contained in this Base Prospectus and the relevant Final Terms and all relevant supplements. Potential purchasers should also consider that the risks described may interact and thus be mutually reinforcing.

An investor in the Securities should be aware that he may lose all or part of his investment and should be aware in this context that the amounts received from or in connection with the Securities from the Issuer (e.g. as coupon and principal payments) or from third parties (e.g. as a purchase price upon disposal) may be less than his acquisition and follow-up costs. Acquisition costs include (i) the amount of capital to be paid in on the Securities or the purchase price for the Securities; and (ii) other costs incurred in connection with the purchase of the Securities (e.g. fees for financial intermediaries). Follow-up costs arise solely from holding the Securities (e.g. current custodian fees). This can result in a partial or complete loss for an investor.

These risk factors are presented in categories and sub-categories depending on their nature. In the case of several risks in a category and sub-category, the most material risk of each category and sub-category are mentioned first. The assessment of materiality of the risks has been made by the Issuer as of the date of this Base Prospectus on the basis of the probability of their occurrence and the expected magnitude of their negative impact. The magnitude of the negative impact of each of the below risk factors on the relevant Securities is described by reference to the magnitude of potential losses of the invested capital (including a potential total loss), the incurrence of additional costs in relation to the Securities or limitations of returns on the Securities. An assessment of the probability of the occurrence of risks and the magnitude of the negative impact also depends on the relevant Underlying and/or Basket Components, the relevant parameters with regard to the Securities set out in the applicable Final Terms and the circumstances existing as of the date of the relevant Final Terms.

#### 1. Risk factors in connection with the Issuer

In this category, the risk factors relating to GSW as Issuer as set out on pages 3 to 5 of the Registration Document of Goldman Sachs Finance Corp International Ltd dated 2 June 2022 approved by the German Federal Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*; the "**BaFin**") (the "**GSW Registration Document**") are hereby incorporated by reference into this Base Prospectus.

#### 2. Risk factors in connection with the Guarantor

The risk factors relating to The Goldman Sachs Group, Inc. contained on PDF-pages 12 - 14 of the Base Prospectus Euro Medium-Term Notes, Series F dated 15 April 2022 (the "GSG Base Prospectus"), approved by the Commission de Surveillance du Secteur Financier in Luxembourg ("CSSF") are hereby incorporated by reference into this Base Prospectus. In addition, information on risk factors associated with The Goldman Sachs Group, Inc. that is included in

the Annual Report on Form 10-K for the fiscal year ended 31 December 2021 (the "**Form 10-K 2021**") (PDF-pages 32 (except for the first and second paragraph) - 58) is incorporated by reference into this Base Prospectus.

#### 3. Risk factors associated with the product structure of the Securities

In this category, the specific risks associated with the payout profile of each product structure are described. The risks resulting from the payout profile are set out separately with respect to each product structure. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

#### 3.1. Product No. 1. Risk factors applicable to Bonus Securities

Risk of total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Security Holder has a risk of significant losses. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

Security Holders should note that if a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "Bonus Amount") expires, and that the Bonus Securities are comparable with a direct investment in the Underlying (irrespective of dividend payments) (taking into account the Participation Factor, if provided for in the applicable Final Terms). Therefore, the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

The occurrence of a "Barrier Event" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "Observation Price") breaches the Barrier at any time during an observation period (if the applicable Final Terms provide for a so-called American barrier observation) or on the Final Valuation Date (if the applicable Final Terms provide for a so-called European barrier observation).

An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price movements of the Underlying. The higher the volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, with regard to Bonus Securities with American barrier observation, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier.

#### 3.2. Product No. 2. Risk factors applicable to Capped Bonus Securities

#### Risk of total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Security Holder has a risk of significant losses. The lower the level of the

### Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

Security Holders should note that if a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "Bonus Amount") expires, and that the Capped Bonus Securities are comparable with a direct investment in the Underlying (irrespective of dividend payments) (taking into account the Participation Factor, as described in the applicable Final Terms) up to a threshold specified in the respective Final Terms (the "Cap"). Therefore, the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

The occurrence of a "Barrier Event" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "Observation Price") breaches the Barrier at any time during an observation period (if the applicable Final Terms provide for a so-called American barrier observation) or on the Final Valuation Date (if the applicable Final Terms provide for a so-called European barrier observation).

An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price movements of the Underlying. The higher the volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, with regard to Capped Bonus Securities with American barrier observation, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier.

#### Settlement Amount is limited to Maximum Amount

The Security Holder does not participate in a price movement of the Underlying above the Cap; the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

Irrespective of whether or not a Barrier Event has occurred, the Settlement Amount will not exceed the maximum amount defined in the respective Final Terms (the "Maximum Amount"). This means that the Security Holder does not participate in a price movement of the Underlying above the Cap, with the result that the possible yield on Capped Bonus Securities has an upper limit.

#### 3.3. Product No. 3. Risk factors applicable to Discount Securities

#### Risk of total loss

If the level of the Underlying on the Final Valuation Date is below a specific threshold (Cap) the Security Holder has a risk of significant losses. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

The Settlement Amount and, if applicable, the type of settlement (cash settlement or physical delivery) depend on the development of the Underlying.

- In the case of Discount Securities, which in accordance with the applicable Final Terms provide for settlement by cash settlement in all cases, the following should be taken into account:
  - Security Holders should note that if a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is below a certain threshold (the "**Cap**") specified in the applicable Final Terms, Discount Securities are comparable with a direct investment in the Underlying (without taking into account dividend payments). Therefore, the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss will occur if the Underlying is worthless on the Final Valuation Date.
- In the case of Discount Securities, which in accordance with the applicable Final Terms may provide for settlement by physical settlement, the following should be taken into account:

Security Holders should note that if a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is below a certain threshold (the "**Cap**") specified in the applicable Final Terms, the Securities are settled by physical delivery of the Underlying or shares of an Exchange Traded Fund. The equivalent value of the delivered Underlyings or shares of an Exchange Traded Fund is generally lower than the Nominal and/or Calculation Amount. A total loss usually occurs when the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund is worthless on delivery (see also under "II.6.3. Risks in connection with the physical delivery" for the risks associated with the settlement of the Securities by physical delivery of the Underlying(s) of shares of an Exchange Traded Fund).

#### Settlement Amount is limited to Maximum Amount

The Security Holder does not participate in a price movement of the Underlying above the Cap; the Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

In the case of Discount Securities, the Settlement Amount will not exceed the maximum amount defined in the respective Final Terms (the "**Maximum Amount**"). This means that the Security Holder does not participate in a price movement of the Underlying above the Cap, with the result that the possible yield on Discount Securities has an upper limit.

#### 3.4. Product No. 4. Risk factors applicable to Reverse Convertible Securities

#### Risk of total loss

If the level of the Underlying on the Final Valuation Date is below a specific threshold (Strike) the Security Holder has a risk of significant losses. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs when the Underlying is worthless on the Final

# Valuation Date and/or the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund is worthless on delivery.

The Settlement Amount and, if applicable, the type of settlement (cash settlement or physical delivery) depend on the development of the Underlying.

• In the case of Reverse Convertible Securities, which in accordance with the applicable Final Terms provide for settlement by cash settlement in all cases, the following should be taken into account:

Security Holders should note that if a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, Reverse Convertible Securities are comparable with a direct investment in the Underlying (without taking into account dividend payments). In this case, the Settlement Amount is generally lower than the Nominal and/or Calculation Amount. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Underlying is worthless on the Final Valuation Date.

Reverse Convertible Securities provide for fixed coupon payment during the term irrespective of the development of the Underlying, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Underlying, provided that the fixed coupon payments can no longer compensate for the negative development of the Underlying and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the Settlement Amount plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment it should be noted that the Security Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

• In the case of Reverse Convertible Securities, which in accordance with the applicable Final Terms may provide for settlement by physical settlement, the following should be taken into account:

Security Holders should note that if a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, the Securities are settled by physical delivery of the Underlying or shares of an Exchange Traded Fund. The equivalent value of the delivered Underlyings or shares of an Exchange Traded Fund is generally lower than the Nominal and/or Calculation Amount. A total loss (other than the fixed coupon payment(s)) usually occurs when the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund is worthless on delivery (see also under "II.6.3. Risks in connection with the physical

delivery" for the risks associated with the settlement of the Securities by physical delivery of the Underlying(s) of shares of an Exchange Traded Fund).

Reverse Convertible Securities provide for fixed coupon payment during the term irrespective of the development of the Underlying, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Underlying, provided that the fixed coupon payments can no longer compensate for the negative development of the Underlying and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment it should be noted that the Security Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

#### Settlement Amount is limited to Nominal and/or Calculation Amount

The Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

The Security Holder does not participate in a positive performance of the Underlying on the Final Valuation Date above the Strike. The Security Holder should consider that the Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

#### 3.5. Product No. 5. Risk factors applicable to Barrier Reverse Convertible Securities

#### Risk of total loss

If a Barrier Event has occurred and the level of the Underlying on the Final Valuation Date is below a specific threshold (Strike) the Security Holder has a risk of significant losses. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs when the Underlying is worthless on the Final Valuation Date and/or the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund is worthless on delivery.

The Settlement Amount and, if applicable, the type of settlement (cash settlement or physical delivery) depend on the development of the Underlying.

• In the case of Barrier Reverse Convertible Securities, which in accordance with the applicable Final Terms provide for settlement by cash settlement in all cases, the following should be taken into account:

Security Holders should note that if a Barrier Event has occurred and a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is equal to or below a certain threshold (the "**Strike**") specified in

the applicable Final Terms, Barrier Reverse Convertible Securities are comparable with a direct investment in the Underlying (without taking into account dividend payments). In this case, the Settlement Amount is generally lower than the Nominal and/or Calculation Amount. The lower the level of the Underlying is on the Final Valuation Date, the lower the Settlement Amount. A total loss (other than the fixed coupon payment(s)) occurs if the Underlying is worthless on the Final Valuation Date.

The occurrence of a "Barrier Event" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "Observation Price") breaches the Barrier at any time during an observation period. An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price movements of the Underlying. The higher the volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier.

Barrier Reverse Convertible Securities provide for fixed coupon payment during the term irrespective of the development of the Underlying, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Underlying, provided that the fixed coupon payments can no longer compensate for the negative development of the Underlying and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the Settlement Amount plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment it should be noted that the Security Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

In the case of Barrier Reverse Convertible Securities, which in accordance with the applicable Final Terms may provide for settlement by physical settlement, the following should be taken into account:

Security Holders should note that if a price of the Underlying on the Final Valuation Date specified in the applicable Final Terms (the "**Reference Price**") is equal to or below a certain threshold (the "**Strike**") specified in the applicable Final Terms, the Securities are settled by physical delivery of the Underlying or shares of an Exchange Traded Fund. The equivalent value of the delivered Underlyings or shares of an Exchange Traded Fund is generally lower than the Nominal and/or Calculation Amount. A total loss (other than the fixed coupon payment(s)) usually occurs when the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund is worthless on delivery (see also under "II.6.3. Risks in connection with the physical delivery" for the risks associated with the settlement of the Securities by physical delivery of the Underlying(s) of shares of an Exchange Traded Fund).

The occurrence of a "Barrier Event" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "Observation Price") breaches the Barrier at any time during an observation period. An important determinant for the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price movements of the Underlying. The higher the volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in a declining price of the Security. Furthermore, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier.

Barrier Reverse Convertible Securities provide for fixed coupon payment during the term irrespective of the development of the Underlying, which is determined at issuance. Since the potential yield of the Securities can generally only result from the coupon payment, the investment in the Securities may turn out to be less profitable than a direct investment in the Underlying, provided that the fixed coupon payments can no longer compensate for the negative development of the Underlying and the resulting capital loss. The loss corresponds to the difference between (i) the purchase price paid for the Security (plus transaction costs) and (ii) the equivalent value of the delivered Underlying(s) and/or shares of an Exchange Traded Fund plus the coupon payment(s). Furthermore, in connection with the fixed coupon payment it should be noted that the Security Holder does not participate in an increase in market interest rates. In the case of increasing market interest rates, there is a risk that the price of the Securities may decrease during the term.

#### Settlement Amount is limited to Nominal and/or Calculation Amount

The Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

The Security Holder does not participate in a positive performance of the Underlying on the Final Valuation Date above the Strike. The Security Holder should consider that the Settlement Amount (regardless of possible coupon payments during the term) will not exceed the Nominal and/or Calculation Amount in any case with the result that the possible yield on the Securities has an upper limit.

#### 3.6. Product No. 6. Risk factors applicable to Reverse Bonus Securities

#### Risk of a total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Security Holder has a risk of significant losses. The higher the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the level of the Underlying on the Final Valuation Date is equal to or above a certain threshold (Reverse Level).

Security Holders should note that in the case of a reverse structure the performance of the Securities reversely depends on the performance of the Underlying. Accordingly, a Reverse Bonus Security typically declines in value (i.e. irrespective of other features and factors that determine the price of Securities), if the level of the Underlying increases. If a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "Bonus Amount") expires and the Security Holder inversely participates in the performance of the Underlying. If a Barrier Event occurs the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The higher the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the level of the Underlying on the Final Valuation Date is equal to or above a threshold (the "Reverse Level") specified in the applicable Final Terms.

The occurrence of a "Barrier Event" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "Observation Price") breaches the Barrier at any time during an observation period (if the applicable Final Terms provide for a so-called American barrier observation) or on the Final Valuation Date (if the applicable Final Terms provide for a so-called European barrier observation).

An important determinant of the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price fluctuations of the Underlying. The higher the Volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in the price of the Security declining. Furthermore, with regard to Reverse Bonus Securities with American barrier observation, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier.

#### Leverage effect in the case of Reverse Bonus Securities due to the reverse structure

### A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

There exists a leverage effect in the case of Reverse Bonus Securities, the amount of which results from the Reverse Level. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Securities. A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

#### Settlement Amount is limited

# The yield on these Securities has an upper limit due to the reverse structure since the participation in the negative performance of the Underlying is limited to 100%.

Security Holders should note that the yield is limited (regardless of a maximum redemption factor and/or cap) due to the reverse structure, since the participation in the negative performance of the Underlying (provided the participation factor is not above 100%) is limited to 100%. The Settlement Amount is limited to the Reverse Level (taking into account the Multiplier and/or the Nominal and/or Calculation Amount and, as the case may be, conversion into the Settlement Currency, if applicable).

#### 3.7. Product No. 7. Risk factors applicable to Capped Reverse Bonus Securities

#### Risk of a total loss in the case of a Barrier Event

If a Barrier Event occurs the entitlement to a minimum redemption (Bonus Amount) expires and the Security Holder has a risk of significant losses. The higher the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the level of the Underlying on the Final Valuation Date is equal to or above a certain threshold (Reverse Level).

Security Holders should note that in the case of a reverse structure the performance of the Securities reversely depends on the performance of the Underlying. Accordingly, a Capped Reverse Bonus Security typically declines in value (i.e. irrespective of other features and factors that determine the price of Securities), if the level of the Underlying increases. If a Barrier Event occurs, the entitlement to a minimum redemption that equals a minimum amount defined in the respective Final Terms (the "Bonus Amount") expires and the Security Holder inversely participates in the performance of the Underlying up to the level of a threshold defined by the respective Final Terms (the "Cap"). If a Barrier Event occurs the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The higher the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying on the Final Valuation Date is equal to or above a threshold (the "Reverse Level") specified in the applicable Final Terms.

The occurrence of a "**Barrier Event**" is further described in the applicable Final Terms and occurs, for example, if a specified price of the Underlying (the "**Observation Price**") breaches the Barrier at any time during an observation period (if the applicable Final Terms provide for a so-called American barrier observation) or on the Final Valuation Date (if the applicable Final Terms provide for a so-called European barrier observation).

An important determinant of the probability of the occurrence of a Barrier Event is the volatility of the Underlying. The term "Volatility" means the fluctuation margin or price fluctuations of the Underlying. The higher the Volatility of an Underlying, the higher the risk to the Security Holder that the Barrier will be broken. An increasing probability of a Barrier break tends to result in the price of the Security declining. Furthermore, with regard to Capped Reverse Bonus Securities with American barrier observation, it should be noted that the longer the observation period, the higher the risk of breaching the Barrier

Leverage effect in the case of Capped Reverse Bonus Securities due to the reverse structure

### A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

There exists a leverage effect in the case of Capped Reverse Bonus Securities, the amount of which results from the Reverse Level. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Securities. A lower Reverse Level leads to a higher leverage effect and, therefore, to a higher risk of loss.

#### Settlement Amount is limited to Maximum Amount

The Security Holder does not participate in a negative price movement of the Underlying below the Cap; the Settlement Amount does not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

In the case of Capped Reverse Bonus Securities, the Settlement Amount will not exceed the maximum amount defined in the respective Final Terms (the "Maximum Amount"). This means that the Security Holder does not participate in a negative price movement of the Underlying below the Cap and the Settlement Amount will not exceed the Reverse Level minus the Cap (taking into account the Multiplier and/or the Nominal and/or Calculation Amount and, as the case may be, conversion into the Settlement Currency, if applicable) with the result that the possible yield on the Securities has an upper limit.

#### 3.8. Product No. 8. Risk factors applicable to Open End Securities

#### Risk of total loss

The Security Holder has a risk of significant losses. The lower the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date.

Security Holders should note that Open End Securities are comparable with a direct investment in the Underlying (irrespective of dividend payments and management or quanto fees). Therefore, the Security Holder is exposed to a risk of loss comparable to the direct investment and the Security Holder has a risk of significant losses up to a total loss with regard to the invested capital. The lower the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is worthless on the Final Valuation Date (e.g. in the case of a termination by the Issuer). Regarding the risks in the event of an ordinary termination of the Securities by the Issuer, see under "II.6.2. Risks related to an ordinary termination of the Securities".

#### Risk factors related to Securities with Management Fee or Quanto Fee or Transaction Fee

The consideration of a management fee or quanto fee reduces the Settlement Amount payable and the value of the Securities on the secondary market during the term.

To the extent provided in the applicable Final Terms, a certain Management Fee or Quanto Fee is deducted from the Settlement Amount payable.

The Management Fee compensates the Issuer or entities associated with the Issuer for costs incurred by it (in the absence of foreign exchange hedging) in entering into transactions related to the Underlying on the capital markets, which serve to hedge the fulfilment risks associated with the issuance of the Securities ("**Hedging Transactions**"). The Quanto Fee is charged in order to compensate the Issuer for hedging costs in hedging foreign exchange risk.

It should be noted that a Management Fee or Quanto Fee not only reduces the Settlement Amount payable by the Issuer, whereby the Reference Price is multiplied by a Management Factor or Fee Factor (consisting of the Management Fee and Quanto Fee) calculated pursuant to the Issue Specific Terms, but also reduces the value of the Securities on the secondary market during their

term. Such a Management Fee or Quanto Fee is incorporated in the calculation of the bid and ask prices for Securities on the secondary market according to the portion of the term of the Securities that has already expired.

• Particular features of the Management Fee

The Issuer is entitled to adjust the level of the Management Fee during the term of the Securities. In the case of a Management Fee greater than zero (0), the effect of the Management Fee will be greater, the longer the holding period in which it applies to the Securities.

• Particular features of the Quanto Fee

Exchange rate hedging costs may vary considerably according to market conditions and may have either a significant negative or a significant positive value. This will be reflected in the current Quanto Fee. Should the exchange rate hedging costs be significantly positive, the Quanto Fee will increase and lead to a lower Settlement Amount. Should the exchange rate hedging costs be significantly negative, the Quanto Fee will be smaller and the Settlement Amount will be higher. As the term increases, it is relatively unlikely that a negative Quanto Fee will offset the Management Fee and that the Fee Factor will have a positive effect for the Security Holder.

The level of the Quanto Fee is set by the Issuer on the basis of the current market parameters. Five factors in particular are influential in determining these costs: the interest rate of the Reference Currency, the interest rate of the Base Currency that is being hedged, the volatility of the Underlying, the volatility of the exchange rate between the Reference Currency and the Base Currency, and the correlation between the price of the Underlying and the performance of the exchange rate.

The costs may be increased as a result of an increasing interest rate in the Reference Currency, a falling interest rate in the Base Currency, as well as increasing volatilities and an increasing correlation. This may lead to a higher Quanto Fee and consequently to a lower investment yield, all other conditions remaining the same.

• Particular features of Open End Securities related to futures contracts with Transaction Fee

In the case of Open End Securities related to futures contracts, it is to be noted that a "**Transaction Fee**" may be calculated to cover the transaction costs arising from the Rollover. The amount of such Transaction Fee is based on a number per futures contract, expressed in the Reference Currency.

The application of the transaction costs to the Multiplier leads to a loss in value of the Securities if the Transaction Fee is greater than zero (0). It must further be noted that the Transaction Fee is incurred both in respect of the purchase and the

sale of the futures contracts on a Rollover, and therefore has to be considered twice when determining the adjusted Multiplier.

#### 3.9. Product No. 9. Risk factors applicable to Plain Warrants

#### Risk of total loss

There is a risk that the Security Holder suffers significant losses. The lower (in the case of Plain Call Warrants) and/or the higher (in the case of Plain Put Warrants) the level of the Underlying on the Final Valuation Date, the lower the Settlement Amount. A total loss occurs if the Underlying is equal to or below (in the case of Plain Call Warrants) or equal to or above (in the case of Plain Put Warrants) the Strike on the Final Valuation Date.

The Settlement Amount of Plain Warrants is calculated – in the case of Plain Call Warrants – by the difference between the level of the Underlying on the Final Valuation Date (the "**Reference Price**") and the Strike (taking into account the Multiplier) and/or – in the case of Plain Put Warrants – by the difference between the Strike and the Reference Price (taking into account the Multiplier).

In the case of Plain Warrants there is a risk that the Security Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Reference Price is equal to or below the Strike (in the case of Plain Call Warrants) and/or equal to or above the Strike (in the case of Plain Put Warrants).

#### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Plain Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Plain Warrants.

Plain Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Plain Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Plain Warrants.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Plain Warrants compared to a direct investment in the Underlying. As a rule, the following applies: If the price of the Underlying of a Plain Call Warrant declines, the price of the Plain Call Warrant declines disproportionately. If the price of the Underlying of a Plain Put Warrant rises, the price of the Plain Put Warrant falls disproportionately. The greater the leverage effect of the Plain Warrants, the higher the risk of losses. Due to the leverage effect the Plain Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

#### 3.10. Product No. 10. Risk factors applicable to Discount Warrants

#### Risk of total loss

There is a risk that the Security Holder suffers significant losses. The lower (in the case of Discount Call Warrants) and/or the higher (in the case of Discount Put Warrants) the level

of the Underlying on the Final Valuation Date is, the lower the Settlement Amount. A total loss occurs if the Underlying is equal to or below (in the case of Discount Call Warrants) or equal to or above (in the case of Discount Put Warrants) the Strike on the Final Valuation Date.

The Settlement Amount of Discount Warrants is calculated – in the case of Discount Call Warrants – by the difference between the level of the Underlying on the Final Valuation Date and the Strike (taking into account the Multiplier) and/or – in the case of Discount Put Warrants – by the difference between the Strike and the level of the Underlying on the Final Valuation Date (taking into account the Multiplier) whereby the Settlement Amount will not exceed the Maximum Amount.

In the case of Discount Warrants there is a risk that the Security Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the level of the Underlying on the Final Valuation Date is equal to or below the Strike (in the case of Discount Call Warrants) and/or equal to or above the Strike (in the case of Discount Put Warrants).

#### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Discount Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Discount Warrants.

Discount Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Discount Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Discount Warrants.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Discount Warrants compared to a direct investment in the Underlying. Generally this means: If the level of the Underlying of Discount Call Warrants decreases, the value of Discount Call Warrants decreases disproportionately high. If the level of the Underlying of Discount Put Warrants increases, the value of Discount Put Warrants decreases disproportionately high. The greater the leverage effect of the Discount Warrants, the higher the risk of losses. Due to the leverage effect the Discount Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

#### Settlement Amount is limited to Maximum Amount

The Settlement Amount will not exceed the Maximum Amount in any case with the result that the possible yield on the Securities has an upper limit.

In the case of Discount Warrants, the Settlement Amount will not exceed the maximum amount specified in the applicable Final Terms (the "**Maximum Amount**"). This means that the possible yield on Discount Warrants has an upper limit.

#### 3.11. Product No. 11. Risk factors applicable to Mini Future Warrants or Turbo Certificates

#### Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of Mini Future Warrants or Turbo Certificates there is a risk that the Security Holder suffers significant losses. Furthermore, in the case of Mini Future Warrants or Turbo Certificates, there is the risk that the products expire worthless during their term if a Knock-Out Event has occurred.

The Settlement Amount of Mini Future Warrants or Turbo Certificates is calculated – in the case of Mini Future Long Warrants and Turbo Long Certificates – by the difference between the level of the Underlying on the Final Valuation Date (the "**Reference Price**") and the current Strike (taking into account the Multiplier) and/or – in the case of Mini Future Short Warrants and Turbo Short Certificates – by the difference between the current Strike and the Reference Price (taking into account the Multiplier). In the case of Mini Future Warrants or Turbo Certificates there is a risk that the Security Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Reference Price is equal to or below the current Strike (in the case of Mini Future Long Warrants and Turbo Long Certificates) and/or equal to or above the Strike (in the case of Mini Future Short Warrants and Turbo Short Certificates).

Furthermore, Security Holders of Mini Future Turbo Warrants or Turbo Certificates bear the risk that the Mini Future Warrants or Turbo Certificates expire worthless during their term, if a so-called Knock-Out Event has occurred. A Knock-Out Event occurs, if a level of the Underlying defined in the applicable Final Terms (the "**Observation Price**") reaches or falls below (in the case of Mini Future Long Warrants and Turbo Long Certificates) and/or reaches or exceeds (in the case of Mini Future Short Warrants and Turbo Short Certificates) a predefined price or value threshold (the so-called "**Knock-Out Barrier**").

The Security Holder must always bear in mind that even if the Observation Price is equal to or below (in the case of Mini Future Long Warrants or Turbo Long Certificates) or equal to or above (in the case of Mini Future Short Warrants or Turbo Short Certificates) the current Knock-Out Barrier only on a single occasion, this will result in the occurrence of a Knock-Out Event. In this context, it should be noted that the determination of the occurrence of a Knock-Out Event may be based on prices of the Underlying which are determined during regular trading sessions other than the trading sessions of Mini Future Warrants or Turbo Certificates, so that there is a risk for the Security Holder that he is not aware or not aware in time of the threat of a Knock-Out Event. In the case of DAX®/X-DAX® as Underlying, Security Holders should note that the Observation Price relevant for determining the Knock-Out Event includes both the prices of the DAX® (Performance Index) and the prices of the X-DAX®. The period during which the Knock-Out Event may occur is therefore longer than in the case of Securities with Knock-Out Barrier, which are linked only to the DAX® (Performance Index). It must also be considered that in the case of the X-DAX®, the probability of price spikes and thus the risk of a Knock-Out Event is higher due to the event-driven calculation.

If a Knock-Out Event occurs, the term of the Mini Future Warrants or Turbo Certificates ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Mini Future Warrants or Turbo Certificates expire worthless, subject to a

potential payout of the residual price of the Mini Future Warrants or Turbo Certificates (the socalled "Knock-Out Settlement Amount"). The Knock-Out Settlement Amount corresponds to the difference between the Knock-Out Reference Price as defined in the Conditions and the current Strike (taking into account the Multiplier) and/or - in the case of Mini Future Short Warrants or Turbo Short Certificates - the difference between the current Strike and the Knock-Out Reference Price as defined in the Conditions (taking into account the Multiplier). It must also be considered that Security Holders may suffer a total loss of the invested capital, if Goldman Sachs should not succeed in cancelling the hedge position for a Knock-Out Reference Price above the current Strike (in the case of Mini Future Long Warrants or Turbo Long Certificates) or below the current Strike (in the case of Mini Future Short Warrants or Turbo Short Certificates). Such a risk exists in particular in situations where the price of the Underlying falls significantly (in the case of Mini Future Long Warrants or Turbo Long Certificates) or rises significantly (in the case of Mini Future Short Warrants or Turbo Short Certificates) between the close of trading in the Underlying on a trading day and the commencement of trading on the next following trading day. Consequently, in this case the Security Holder will receive no or only a small Redemption Amount in the occurrence of a Knock-Out Event. The purchase price paid by the Security Holder for the Mini Future Warrant or Turbo Certificate is lost and the Security Holder suffers a (financial) total loss. Security Holders should note in this context that the value of the Mini Future Warrants or Turbo Certificates is reduced disproportionately compared to plain warrants, if the level of the Underlying approaches a Knock-Out Barrier.

An important determinant for the probability of the occurrence of a Knock-Out Event is the volatility of the Underlying. The term "**Volatility**" means the fluctuation margin or price movements of the Underlying. The higher the Volatility of an Underlying, the higher the risk of breaching the Knock-Out Barrier.

Security Holders should note that no continuous bid and ask prices may be quoted for the Mini Future Warrants or Turbo Certificates on the secondary market by The Goldman Sachs Group, Inc. or companies affiliated with them (together "Goldman Sachs" or the "Goldman Sachs Group") between the occurrence of a Knock-Out Event and the phase during which the Knock-Out Reference Price is determined. A Knock-Out Event can only occur during regular trading hours of the Underlying. However, it is possible that an indicative Knock-Out occurs outside of the regular trading hours of the Underlying (for the risks associated with the pricing in the event of an indicative Knock-Out, see also under "Risk related to the pricing in the event of an indicative Knock-Out").

Security Holders should not rely on being able to buy or sell the Mini Future Warrants or Turbo Certificates at any time or on being able to sell them at an appropriate price. The bid and ask prices provided by Goldman Sachs may differ significantly from the fair value or the price of the Securities to be expected economically.

Security Holders cannot rely on being able to exercise their Security Right at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

The Knock-Out Barrier will be adjusted regularly during the term of the Mini Future Warrants or Turbo Warrants on the Knock-Out Adjustment Date specified in the Final Terms. In connection with the adjustment of the Knock-Out Barrier, in particular the following risks must be taken into account:

- In the case of Mini Future Long Warrants or Turbo Long Certificates, the probability that a Knock-Out Event occurs is increased due to the recurring adjustment of the Knock-Out Barrier while the price of the Underlying remains constant.
- In the case of Mini Future Short Warrants or Turbo Short Certificates, the probability that a Knock-Out Event occurs is increased due to the recurring adjustment of the Knock-Out Barrier, while the price of the Underlying remains constant, if the Reference Rate falls below the Interest Margin described in more detail in the Conditions. The longer a Security Holder holds the Mini Future Warrants or Turbo Certificates in these cases, the higher is the risk of loss of the invested capital.
- In the case of Mini Future Warrants or Turbo Certificates linked to Foreign Exchange Rates, the risk that a Knock-Out Event occurs increases, if the difference between the Reference Rate of the Reference Currency and the Reference Rate for the Base Currency is increased (Mini Future Long Warrants or Turbo Long Certificates) or decreased (Mini Future Short Warrants or Turbo Short Certificates).
- In the case of Mini Future Warrants or Turbo Certificates linked to Futures Contracts, the particular risk exists that a Knock-Out Event may occur solely due to the roll of the expiring Futures Contract into the next Futures Contract.
- The regular adjustment of the Knock-Out Barrier will be made on the basis of the respective current Strike. In the course of the recurring adjustment of the Strike any dividends or cash amounts equivalent to dividends will be taken into account (also considering the relevant Dividend Factor which may, inter alia, also reflect the relevant withholding tax amounts pursuant to Section 871(m) of the U.S. Internal Revenue Code in relation to dividends on shares of entities formed or incorporated in the United States). In the case of Mini Future Long Warrants or Turbo Long Certificates linked to a total return index, the current Strike and as a consequence the Knock-Out Barrier will increase. Accordingly, the probability that a Knock-Out Event occurs will increase. The effect will be greater, the higher the dividends and/or the dividend taxation.

The determination and/or the adjustment of the Knock-Out Barrier is made on the basis of the current Strike and the Knock-Out Buffer. The Knock-Out Buffer corresponds to a percentage rate determined by the Issuer when issuing the Mini Future Warrants or Turbo Certificates, the amount of which may be adjusted during the term of the Mini Future Warrants or Turbo Certificates on certain Knock-Out Adjustment Dates up to a Maximum Knock-Out Buffer that was determined by the Issuer when the Mini Future Warrants or Turbo Certificates were issued. An adjustment of the Knock-Out Buffer may occur in particular if the volatility of the Underlying to which the Mini Future Warrant or Turbo Certificates is linked changes significantly. Security Holders should note that the probability that a Knock-Out Event occurs increases if the Knock-Out Buffer is increased, since the distance between the Knock-Out Barrier and the price of the

Underlying is reduced in this case. It cannot be ruled out that a Knock-Out Event may be triggered on a Knock-Out Adjustment Date merely due to the adjustment of the Knock-Out Buffer.

The Strike and the Knock-Out Barrier are adjusted on a regular basis in accordance with specific rules explained in the Conditions. Due to the adjustment of the Strike and the Knock-Out Barrier, the price of the Mini Future Warrants and/or Turbo Certificates may decrease irrespective of the development of the price of the Underlying. In addition, investors should note, that the price of Mini Future Warrants and/or Turbo Certificates depends, for example, also on the interest rate level and any dividends and/or dividend taxation, if applicable. The price of Mini Future Warrants and/or Turbo Certificates usually also reflects the so-called gap risk. This is the risk of price jumps in the Underlying, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger a Stop-Loss Event.

#### Risk related to the pricing in the event of an indicative Knock-Out

The indicative Knock-Out is determined on the basis of different price indicators than the official price references of the Underlying. In this case, Goldman Sachs plans to continue to quote bid prices and Security Holders may therefore generally continue to have the opportunity to sell Securities. However, Goldman Sachs will no longer provide ask prices during the phase of the indicative Knock-Out. Furthermore, Goldman Sachs is under no legal obligation to quote bid prices in the event of an indicative KnockOut. Therefore, Security Holders should not rely on being able to buy or sell the Mini Future Warrants or Turbo Certificates at any time or on being able to sell them at an appropriate price.

The bid and ask prices provided by Goldman Sachs may differ significantly from the fair value or the price of the Securities to be expected economically (for the risks associated with the pricing, see also "7.3. Risk related to the pricing of the Securities").

If Goldman Sachs quotes bid prices on the secondary market for the Mini Future Warrants or Turbo Certificates during the period of an indicative Knock-Out, Security Holders should note that, depending on the further performance of the Underlying, these bid prices may be lower than the Knock-Out Settlement Amount to be paid by Goldman Sachs to the Security Holders in the event of the occurrence of a Knock-Out Event. Therefore, to the extent that a Security Holder sells its Securities in the secondary market during the phase of the indicative Knock-Out, the proceeds may be less than the amount that the Security Holder would have received as Knock-Out Settlement Amount in the case of the occurrence of a Knock-Out Event. Furthermore, in connection with the determination of an indicative Knock-Out by Goldman Sachs, it cannot be concluded from such determination that a Knock-Out Event would actually occur with respect to the Mini Future Warrants or Turbo Certificates, and that thus the term of the Mini Future Warrants or Turbo Certificates would be terminated. Whether a Knock-Out Event occurs that terminates the term of the Mini Future Warrants or Turbo Certificates depends solely on the requirements for the occurrence of a Knock-Out Event as set out in the relevant Final Terms.

#### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Mini Future Warrant or Turbo Certificates whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Mini Future Warrants or Turbo Certificates.

Mini Future Warrants or Turbo Certificates are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Mini Future Warrants or Turbo Certificates. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Mini Future Warrants or Turbo Certificates.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Mini Future Warrants or Turbo Certificates compared to a direct investment in the Underlying. As a rule, the following applies: If the price of the Underlying of a Mini Future Long Warrant or Turbo Long Certificate declines, the price of the Mini Future Long Warrant or Turbo Long Certificate declines disproportionately. If the price of the Underlying of a Mini Future Short Warrant or Turbo Short Certificate rises, the price of the Mini Future Short Warrant or Turbo Short Certificate falls disproportionately.

The greater the leverage effect of the Mini Future Warrants or Turbo Certificates, the higher the risk of losses. Due to the leverage effect Mini Future Warrants or Turbo Certificates involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

#### Risk relating to the Strike Adjustment

In the course of the adjustment different market parameters are considered; dependent on their amount this may lead to a stronger fall in the price of the Mini Future Warrants or Turbo Certificates.

In the case of Mini Future Warrants or Turbo Certificates there is a regular adjustment of the Strike. The adjustment depends on the reference rate or, in the case of foreign exchange rates as Underlying, the reference rate for the base currency and the reference rate for the price currency, as well as the interest margin, which is determined by the Issuer. The Security Holder bears the risk that the relevant reference rate may rise or that the Issuer will determine a higher interest margin.

- In the case of Mini Future Long Warrants or Turbo Long Certificates, an increase in the reference rate or the determination of a higher interest margin by the Issuer causes the Strike to rise more significant with each adjustment; in turn the price of the Mini Future Long Warrants or Turbo Long Certificates falls more with each adjustment.
- In the case of Mini Future Short Warrants or Turbo Short Certificates, the determination of a higher interest margin by the Issuer causes the Strike to fall more significant with each adjustment; in turn the price of the Mini Future Short Warrants or Turbo Short Certificates falls more with each adjustment

Adjustment, replacement or determination of certain parameters relevant for the adjustment of the Strike and/or Knock-Out Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Strike and/or Knock-Out Barrier in its

reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Mini Future Warrants or Turbo Certificates.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the adjustment of the Strike and/or the Knock-Out Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Interest Margin up to the Maximum Interest Margin; (ii) adjust the Knock-Out Buffer up to the Maximum Knock-Out Buffer; (iii) replace the Reference Rate specified in the relevant Final Terms by another rate during the term of the Mini Future Warrants or Turbo Certificates; or (iv) determine the Dividend Factor relevant for the impact of the dividend consideration. The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions, volatility of the Underlying and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends distributed. Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Mini Future Warrants or Turbo Certificates.

Risks relating to the term of the Mini Future Warrants or Turbo Certificates

Mini Future Warrants or Turbo Certificates do not have a fixed term; Security Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of the occurrence of a Knock-Out Event.

Mini Future Warrants or Turbo Certificates do not have a fixed term. The term ends either:

- (a) if a Knock-Out Event occurs, or
- (b) if the Mini Future Warrants or Turbo Certificates are exercised by the Security Holder, or
- (c) if the Mini Future Warrants or Turbo Certificates are terminated by the Issuer pursuant to the Conditions.

Therefore, Security Holders should not rely on being able to hold a position in the Mini Future Warrants or Turbo Certificates for an extended period of time. Security Holders should note that if a Knock-Out Event occurs prior to or on the Termination Date the Knock-Out Event will override the termination by the Issuer.

#### 3.12. Product No. 12. Risk factors applicable to Turbo Warrants

Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of Turbo Warrants there is a risk that the Security Holder suffers significant losses. Furthermore, in the case of Turbo Warrants, there is the risk that the products expire worthless during their term, if a Knock-Out Event has occurred.

The Settlement Amount of Turbo Warrants is calculated – in the case of Turbo Bull Warrants – by the difference between the level of the Underlying on the Final Valuation Date (the "**Reference Price**") and the current Strike (taking into account the Multiplier) and/or – in the case of Turbo Bear Warrants – by the difference between the current Strike and the Reference Price

(taking into account the Multiplier). In the case of Turbo Warrants there is a risk that the Security Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Reference Price is equal to or below the current Strike (in the case of in case of Turbo Bull Warrants) and/or equal to or above the Strike (in the case of Turbo Bear Warrants).

Furthermore, Security Holders in Turbo Warrants bear the risk that the Turbo Warrants expire worthless during their term, if a so-called Knock-Out Event has occurred. A Knock-Out Event occurs, if a level of the Underlying (the "Observation Price") defined in the applicable Final Terms reaches or falls below (in the case of Turbo Bull Warrants) and/or reaches or exceeds (in the case of Turbo Bear Warrants) a predefined price or value threshold (the so-called "Knock-Out Barrier"). In the case of Turbo Warrants the Knock-Out Barrier equals the Strike. The Security Holder must always bear in mind that even if the Observation Price is equal to or below (in the case of Turbo Bull Warrants) or equal to or above (in the case of Turbo Bear Warrants) the Knock-Out Barrier only on a single occasion, this will result in the occurrence of a Knock-Out Event. In this context, it should be noted that the determination of the occurrence of a Knock-Out Event may be based on prices of the Underlying which are determined during regular trading sessions other than the trading sessions of Turbo Warrants, so that there is a risk for the Security Holder that he is not aware or not aware in time of the threat of a Knock-Out Event. In the case of DAX®/X-DAX® as Underlying, Security Holders should note that the Observation Price relevant for determining the Knock-Out Event includes both the prices of the DAX® (Performance Index) and the prices of the X-DAX<sup>®</sup>. The period during which the Knock-Out Event may occur is therefore longer than in the case of Securities with Knock-Out Barrier, which are linked only to the DAX® (Performance Index). It must also be considered that in the case of the X-DAX®, the probability of price spikes and thus the risk of a Knock-Out Event is higher due to the eventdriven calculation.

If a Knock-Out Event occurs, the term of the Turbo Warrants ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Turbo Warrants expire and are repaid at the Knock-Out Settlement Amount specified in the applicable Final Terms, corresponding to a value of zero or a value close to zero. Consequently, in this case the Security Holder will receive no or only a small redemption in the case of an occurrence of a Knock-Out Event. The purchase price paid by the Security Holder for the Turbo Warrants is lost and the Security Holder suffers a (financial) total loss. Security Holders should note in this context that the value of the Turbo Warrants is reduced disproportionately compared to plain warrants, if the level of the Underlying approaches a Knock-Out Barrier.

An important determinant for the probability of the occurrence of a Knock-Out Event is the volatility of the Underlying. The term "**Volatility**" means the fluctuation margin or price movements of the Underlying. The higher the Volatility of an Underlying, the higher the risk of breaching the Knock-Out Barrier.

A Knock-Out Event can only occur during regular trading hours of the Underlying. However, it is possible that an indicative Knock-Out occurs outside of the regular trading hours of the Underlying. The indicative Knock-Out is determined on the basis of different price indicators than the official price references of the Underlying. In this case, Goldman Sachs plans to continue to quote bid prices and Security Holders may therefore generally continue to have the opportunity

to sell Securities. However, Goldman Sachs will no longer provide ask prices during the pase of the indicative Knock-Out. Furthermore, Goldman Sachs is under no legal obligation to quote bid prices in the event of an indicative Knock-Out. Therefore, Security Holders should not rely on being able to buy or sell the Turbo Warrants at any time or to sell them at an appropriate price. The bid and ask prices provided by Goldman Sachs may differ significantly from the fair value or the price of the Securities to be expected economically (for the risks associated with the pricing, see also "7.3. Risk related to the pricing of the Securities").

In connection with the determination of an indicative Knock-Out by Goldman Sachs it should be noted that it cannot be concluded from this determination that a Knock-Out Event will actually occur with respect to the Turbo Warrants, as a result of which the term of the Turbo Warrants would be terminated. Whether a Knock-Out Event occurs as a result of which the term of the Turbo Warrants is terminated depends solely on the requirements for the occurrence of a Knock-Out Event as set out in the relevant Final Terms.

Security Holders cannot rely on being able to exercise their Security Right at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

The price of the Turbo Warrants during the term depends in particular on the price of the Underlying during the term. Generally, the price of the Turbo Warrants falls if the price of the Underlying falls (Turbo Bull Warrants) or rises (Turbo Bear Warrants). A decrease or increase in the Underlying typically has a disproportionately great effect on the price of the Turbo Warrants. In addition to the price of the Underlying, the price of the Turbo Warrants is also dependent on the volatility of the Underlying, the lending costs, the interest rate level, and any dividend expectations, if applicable. The price of Turbo Warrants usually also reflects the so-called gap risk. This is the risk of price jumps in the Underlying, for example between the close of trading on the previous day and the start of trading on the following trading day, that could trigger a Knock-Out Event.

#### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Turbo Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Turbo Warrants.

Turbo Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Turbo Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Turbo Warrant.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Turbo Warrants compared to a direct investment in the Underlying. As a rule, the following applies: If the price of the Underlying of a Turbo Bull Warrant declines, the price of the Turbo Bull Warrant declines disproportionately. If the price of the Underlying of a Turbo Bear Warrant rises, the price of the Turbo Bear Warrant falls disproportionately.

The greater the leverage effect of the Turbo Warrants, the higher the risk of losses. Due to the leverage effect Turbo Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

### 3.13. Product No. 13. Risk factors applicable to Open End Turbo Warrants or Trader Certificates

Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of Open End Turbo Warrants or Trader Certificates there is a risk that the Security Holder suffers significant losses. Furthermore, in the case of Open End Turbo Warrants or Trader Certificates, there is the risk that the products expire worthless during their term, if a Knock-Out Event has occurred.

The Settlement Amount of Open End Turbo Warrants or Trader Certificates is calculated – in the case of Open End Turbo Bull Warrants or Trader Long Certificates – by the difference between the level of the Underlying on the Final Valuation Date (the "**Reference Price**") and the current Strike (taking into account the Multiplier) and/or – in the case of Open End Turbo Bear Warrants or Trader Short Certificates – by the difference between the current Strike and the Reference Price (taking into account the Multiplier). In the case of Open End Turbo Warrants or Trader Certificates there is a risk that the Security Holder suffers significant losses up to a total loss of the invested capital. A total loss occurs if the Reference Price is equal to or below the current Strike (in the case of Open End Turbo Bull Warrants or Trader Long Certificates) and/or equal to or above the Strike (in the case of Open End Turbo Bear Warrants or Trader Short Certificates).

Furthermore, Security Holders in Open End Turbo Warrants or Trader Certificates bear the risk that the Open End Turbo Warrants or Trader Certificates expire worthless during their term, if a so-called Knock-Out Event has occurred. A Knock-Out Event occurs, if a level of the Underlying defined in the applicable Final Terms (the "Observation Price") reaches or falls below (in the case of Open End Turbo Bull Warrants or Trader Long Certificates) and/or reaches or exceeds (in the case of Open End Turbo Bear Warrants or Trader Short Certificates) a predefined price or value threshold (the so-called "Knock-Out Barrier"). In the case of Open End Turbo Warrants or Trader Certificates the current Knock-Out Barrier equals the current Strike. The Security Holder must always bear in mind that even if the Observation Price is equal to or below (in the case of Open End Turbo Bull Warrants or Trader Long Certificates) or equal to or above (in the case of Open End Turbo Bear Warrants or Trader Short Certificates) the current Knock-Out Barrier only on a single occasion, this will result in the occurrence of a Knock-Out Event. In this context, it should be noted that the determination of the occurrence of a Knock-Out Event may be based on prices of the Underlying which are determined during regular trading sessions other than the trading sessions of Open End Turbo Warrants or Trader Certificates, so that there is a risk for the Security Holder that he is not aware or not aware in time of the threat of a Knock-Out Event. In the case of DAX®/X-DAX® as Underlying, Security Holders should note that the Observation Price relevant for determining the Knock-Out Event includes both the prices of the DAX® (Performance Index) and the prices of the X-DAX®. The period during which the Knock-Out Event may occur is therefore longer than in the case of Securities with Knock-Out Barrier,

which are linked only to the DAX® (Performance Index). It must also be considered that in the case of the X-DAX®, the probability of price spikes and thus the risk of a Knock-Out Event is higher due to the event-driven calculation.

If a Knock-Out Event occurs, the term of the Open End Turbo Warrants or Trader Certificates ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the Open End Turbo Warrants or Trader Certificates expire and are repaid at the Knock-Out Settlement Amount as specified in the applicable Final Terms, corresponding to a value of zero or a value close to zero. Consequently, in this case the Security Holder will receive no or only a small redemption in the case of the occurrence of a Knock-Out Event. The purchase price paid by the Security Holder for the Turbo Warrants is lost and the Security Holder suffers a (financial) total loss. Security Holders should note in this context that the value of the Open End Turbo Warrants or Trader Certificates is reduced disproportionately compared to plain warrants, if the price of the Underlying approaches a Knock-Out Barrier.

An important determinant for the probability of the occurrence of a Knock-Out Event is the volatility of the Underlying. The term "**Volatility**" means the fluctuation margin or price movements of the Underlying. The higher the Volatility of an Underlying, the higher the risk of breaching the Knock-Out Barrier.

A Knock-Out Event can only occur during regular trading hours of the Underlying. However, it is possible that an indicative Knock-Out occurs outside of the regular trading hours of the Underlying. The indicative Knock-Out is determined on the basis of different price indicators than the official price references of the Underlying. In this case, Goldman Sachs plans to continue to quote bid prices and Security Holders may therefore generally continue to have the opportunity to sell Securities. However, Goldman Sachs will no longer provide ask prices during the phase of the indicative Knock-Out. Furthermore, Goldman Sachs is under no legal obligation to quote bid prices in the event of an indicative Knock-Out. Therefore, Security Holders should not rely on being able to buy or sell the Open End Turbo Warrants or Trader Certificates at any time or to sell them at an appropriate price. The bid and ask prices provided by Goldman Sachs may differ significantly from the fair value or the price of the Securities to be expected economically (for the risks associated with the pricing, see also "7.3. Risk related to the pricing of the Securities").

In connection with the determination of an indicative Knock-Out by Goldman Sachs it should be noted that it cannot be concluded from this determination that a Knock-Out Event will actually occur with respect to the Open End Turbo Warrants or Trader Certificates, as a result of which the term of the Open End Turbo Warrants or Trader Certificates would be terminated. Whether a Knock-Out Event occurs as a result of which the term of the Open End Turbo Warrants or Trader Certificates is terminated depends solely on the requirements for the occurrence of a Knock-Out Event as set out in the relevant Final Terms.

Security Holders cannot rely on being able to exercise their Security Right at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

The Knock-Out Barrier will be adjusted regularly during the term of the Open End Turbo Warrants or Trader Certificates. In connection with the adjustment of the Knock-Out Barrier, the following risks in particular must be taken into account:

- In the case of Open End Turbo Bull Warrants or Trader Long Certificates, the probability that a Knock-Out Event occurs is increased due to the recurring adjustment of the Knock-Out Barrier while the price of the Underlying remains constant.
- In the case of Open End Turbo Bear Warrants or Trader Short Certificates, the probability that a Knock-Out Event occurs is increased due to the recurring adjustment of the Knock-Out Barrier, while the price of the Underlying remains constant, if the Reference Rate falls below the Interest Margin described in more detail in the Conditions. The longer a Security Holder holds the Open End Turbo Warrants or Trader Certificates in these cases, the higher is the risk of loss of the invested capital.
- In the case of Open End Turbo Warrants or Trader Certificates linked to Foreign Exchange Rates, the risk that a Knock-Out Event occurs increases, if the difference between the Reference Rate of the Reference Currency and the Reference Rate for the Base Currency is increased (Open End Turbo Bull Warrants or Trader Long Certificates) or decreased (Open End Turbo Bear Warrants or Trader Short Certificates).
- In the case of Open End Turbo Warrants or Trader Certificates linked to Futures Contracts, the particular risk exists that a Knock-Out Event may occur solely due to the roll of the expiring Futures Contract into the next Futures Contract.
- The regular adjustment of the Knock-Out Barrier will be made on the basis of the respective current Strike. In the course of the recurring adjustment of the Strike any dividends or cash amounts equivalent to dividends will be taken into account (also considering the relevant Dividend Factor which may, inter alia, also reflect the relevant withholding tax amounts pursuant to Section 871(m) of the U.S. Internal Revenue Code in relation to dividends on shares of entities formed or incorporated in the United States). In the case of Open End Turbo Warrants or Trader Certificates linked to a total return index, the current Strike and as a consequence the Knock-Out Barrier will increase. Accordingly, the probability that a Knock-Out Event occurs will increase. The effect will be greater, the higher the dividends and/or the dividend taxation.

The price of the Open End Turbo Warrants or Trader Certificates during the term depends in particular on the price of the Underlying during the term. Generally, the price of the Open End Turbo Warrants or Trader Certificates falls if the price of the Underlying falls (Open End Turbo Bull Warrants or Trader Long Certificates) or rises (Open End Turbo Bear Warrants or Trader Short Certificates). A decrease or increase in the Underlying typically has a disproportionately great effect on the price of the Open End Turbo Warrants or Trader Certificates. In addition to the price of the Underlying, the price of the Open End Turbo Warrants or Trader Certificates is also dependent on the volatility of the Underlying, the lending costs, the interest rate level, and any dividend expectations, if applicable. The price of Open End Turbo Warrants or Trader Certificates usually also reflects the so-called gap risk. This is the risk of price jumps in the Underlying, for example between the close of trading on the previous day and the start of trading on

the following trading day, that could trigger a Knock-Out Event. In the case of Open End Turbo Warrants or Trader Certificates, the Strike and Knock-Out Barrier are adjusted on a regular basis. Due to these adjustments, the price of the Open End Turbo Warrants or Trader Certificates may decline irrespective of the performance of the Underlying.

### Disproportionate risk of loss due to the leverage effect

# The Security Holder bears the risk of strong price fluctuations of Open End Turbo Warrants or Trader Certificates whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account.

Open End Turbo Warrants or Trader Certificates are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Open End Turbo Warrants or Trader Certificates. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Open End Turbo Warrants or Trader Certificates.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Open End Turbo Warrants or Trader Certificates compared to a direct investment in the Underlying. As a rule, the following applies: If the price of the Underlying of a Open End Turbo Bull Warrant or Trader Long Certificate declines, the price of the Open End Turbo Bull Warrant or Trader Long Certificate declines disproportionately. If the price of the Underlying of a Open End Turbo Bear Warrant or Trader Short Certificate rises, the price of the Open End Turbo Bear Warrant or Trader Short Certificate falls disproportionately.

The greater the leverage effect of the Open End Turbo Warrants or Trader Certificates, the higher the risk of losses. Due to the leverage effect Open End Turbo Warrants or Trader Certificates involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

### Risk relating to the Strike Adjustment

### In the course of the adjustment different market parameters are considered; dependent on their amount this may lead to a stronger fall in the price of the Open End Turbo Warrants or Trader Certificates.

In the case of Open End Turbo Warrants or Trader Certificates there is a regularly adjustment of the Strike. The adjustment depends on the reference rate or, in the case of foreign exchange rates as Underlying, the reference rate for the base currency and the reference rate for the price currency, as well as the interest margin, which is determined by the Issuer. The Security Holder bears the risk that the relevant reference rate increases or that the Issuer will determine a higher interest margin.

- In the case of Open End Turbo Bull Warrants or Trader Long Certificates, an increase in the reference rate or the determination of a higher interest margin by the Issuer causes the Strike to rise more significant with each adjustment; in turn the price of the Open End Turbo Bull Warrants or Trader Long Certificates falls more with each adjustment.
- In the case of Open End Turbo Bear Warrants or Trader Short Certificates, the determination of a higher interest margin by the Issuer causes the Strike to fall more significant

with each adjustment; in turn the price of the Open End Turbo Bear Warrants or Trader Short Certificates falls more with each adjustment.

Adjustment, replacement or determination of certain parameters relevant for the adjustment of the Strike and/or Knock-Out Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Strike and/or Knock-Out Barrier in its reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Open End Turbo Warrants or Trader Certificates.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the adjustment of the Strike and/or the Knock-Out Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Interest Margin up to the Maximum Interest Margin; (ii) replace the Reference Rate specified in the relevant Final Terms by another rate during the term of the Open End Turbo Warrants or Trader Certificates; or (iii) determine the Dividend Factor relevant for the impact of the dividend consideration. The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions, volatility of the Underlying and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends distributed. Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Open End Turbo Warrants or Trader Certificates.

Risks relating to the term of the Open End Turbo Warrants and/or Trader Certificates

Open End Turbo Warrants and/or Trader Certificates do not have a fixed term; Security Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of the occurrence of a Knock-Out Event.

Open End Turbo Warrants and/or Trader Certificates do not have a fixed term. The term ends either:

- (a) if a Knock-Out Event occurs, or
- (b) if the Open End Turbo Warrants and/or Trader Certificates are exercised by the Security Holder, or
- (c) if the Open End Turbo Warrants and/or Trader Certificates are terminated by the Issuer pursuant to the Conditions.

Therefore, Security Holders should not rely on being able to hold a position in the Open End Turbo Warrants and/or Trader Certificates for an extended period of time. Security Holders should note that if a Knock-Out Event occurs prior to or on the Termination Date the Knock-Out Event will override the termination by the Issuer.

### 3.14. Product No. 14. Risk factors applicable to Factor Warrants

### Risk of a total loss in the case of the occurrence of a Knock-Out Event

In the case of the occurrence of a Knock-Out Event the Factor Warrants will be automatically terminated and the Security Holder may suffer a total loss of the capital invested. Factor Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants.

In the case of Factor Warrants, the amount of the Settlement Amount is dependent on the performance of the relevant Underlying.

The performance of the Underlying may be subject to fluctuations over time. Depending on the structure of the Factor Warrants, an increase in the Underlying (in the case of Factor Warrants Short) or a decrease in the Underlying (in the case of Factor Warrants Long) has unfavourable consequences for the Security Holders.

Security Holders in Factor Warrants bear the risk that the Factor Warrants expire worthless if during their term a so-called Knock-Out Event has occurred. A Knock-Out Event occurs, if an event defined in the Conditions occurs, which relates to the intrinsic value of the respective Factor Warrant compared to predefined threshold (the so-called "**Knock-Out Barrier**"). If a Knock-Out Event occurs, the term of the Factor Warrants ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the investor will receive the intrinsic value of the Factor Warrant. Investors should note that in this case the Factor Warrants may also expire worthless in the case that the Factor Warrants do not have an intrinsic value. Security Holders should note in this context that the price of the Factor Warrants is reduced disproportionately compared to classical warrants, if the price of the Underlying approaches a Knock-Out Barrier.

Factor Warrants are only suitable for very experienced investors with a very short investment horizon who consciously accept the risks associated with Factor Warrants. The recommended holding period is usually one day.

It must be considered that Security Holders may suffer a total loss of the invested capital, if Goldman Sachs should not succeed in cancelling the hedge position for a Knock-Out Reference Price above the Current Strike (in the case of Factor Warrants Long) or below the Current Strike (in the case of Factor Warrants Short). Such a risk exists in particular in situations where the price of the Underlying falls significantly (in the case of Factor Warrants Long) or rises significantly (in the case of Factor Warrants Short) between the close of trading in the Underlying on a trading day and the commencement of trading on the next following trading day.

Security Holders cannot rely on being able to exercise their Security Rights at all times prior to the occurrence of a Knock-Out Event. Even if all other exercise preconditions set forth in the Terms and Conditions are fulfilled, an exercise is impossible on the day on which a Knock-Out Event occurs. All submitted Exercise Notices that have not been executed become automatically void on the occurrence of the Knock-Out Event.

### Risks in the case of the occurrence of a Stop-Loss Event

### In the case of the occurrence of a Stop-Loss Event, Factor Warrants provide for an intraday adjustment that results in an immediate realization of the losses accrued.

Factor Warrants provide for an intraday adjustment of the Stop-Loss Barrier, the Multiplier and the Strike in the case that a Stop-Loss Event occurs. A Stop-Loss Event occurs, if a defined price of the Underlying is equal to or falls below (in the case of Factor Warrants Long) or is equal to or exceeds (in the case of Factor Warrants Short) the Stop-Loss Barrier during a certain Observation Period. Due to the intraday adjustment it is achieved that a loss of price of the Factor Warrants is limited to a certain amount. However, this mechanism can only mitigate further losses in the Factor Warrants, but the losses may nevertheless be substantial. Therefore, the Stop-Loss Barrier should not be regarded as a "safety buffer" and the amount of losses also depends on the level of the Stop-Loss Barrier. The intraday adjustment results in an immediate realization of the losses accrued, since any recovery in value can only start from the relevant lower level of the Underlying (in the case of Factor Warrants Long) and/or the relevant higher level of the Underlying (in the case of Factor Warrants Short).

An intraday adjustment can also result in losses in the Factor Warrants in the event of significant intraday fluctuations in the Underlying. This will be the case, for example, even if the Underlying returns to its initial level by the close of trading.

Security Holders should note that no continuous bid and ask prices are quoted for the Factor Warrants by Goldman Sachs between the occurrence of a Stop-Loss Event and the phase during which the Stop-Loss Reference Price is determined. A Stop-Loss Event can only occur during regular trading hours of the Underlying. However, it is possible that an indicative Stop-Loss occurs outside of the regular trading hours of the Underlying. The indicative Stop-Loss is determined on the basis of different price indicators than the official price reference of the Underlying. In this case, Goldman Sachs plans to continue to quote bid prices and Security Holders may therefore generally continue to have the opportunity to sell Securities. However, Goldman Sachs will no longer provide ask prices during the phase of the indicative Stop-Loss. Furthermore, Goldman Sachs is under no legal obligation to quote bid prices in the event of an indicative Stop-Loss. Therefore, Security Holders should not rely on being able to buy or sell the Factor Warrants at any time or to sell them at an appropriate price. The bid and ask prices provided by Goldman Sachs may differ significantly from the fair value or the price of the Securities to be expected economically (for the risks associated with the pricing, see also "7.3. Risk related to the pricing of the Securities").

If Goldman Sachs quotes bid prices on the secondary market for the Factor Warrants during the period of an indicative Stop-Loss, Security Holders should note that, depending on the further performance of the Underlying, these bid prices may be lower than the Knock-Out Settlement Amount of the Factor Warrant to be paid by Goldman Sachs to the security holders in the event of the occurrence of a Knock-Out Event. Therefore, to the extent that a Security Holder sells its Securities in the secondary market during the phase of the indicative StopLoss, the proceeds may be less than the amount that the Security Holder would have received as Knock-Out Redemption Amount in the case of the occurrence of a Knock-Out Event. Furthermore, it should be noted in connection with the determination of an indicative Stop-Loss

by Goldman Sachs that it cannot be concluded from this determination that a Stop-Loss Event and subsequently a Knock-Out Event will actually occur with respect to the Factor Warrants, which would terminate the term of the Factor Warrants. Whether a StopLoss Event and/or a Knock-Out Event occurs, as a result of which the term of the Factor Warrants is terminated, depends solely on the requirements for the occurrence of a Stop-Loss Event and/or the occurrence of a Knock-Out Event as set out in the relevant Final Terms.

Security Holders should furthermore note that they may suffer a total loss of the invested capital, if Goldman Sachs should not succeed in cancelling the hedge position for a Stop-Loss Reference Price above the Current Strike (in the case of Factor Warrants Long) or below the Current Strike (in the case of Factor Warrants Short). Such a risk exists in particular in situations where the price of the Underlying falls significantly (in the case of Factor Warrants Long) or rises significantly (in the case of Factor Warrants Short) between the close of trading in the Underlying on a trading day and the commencement of trading on the next following trading day.

### Risk factors in connection with the daily adjustment

The Strike is adjusted on a regular basis whereby such adjustment may have a negative impact on the value of the Factor Warrants. Investors must consider that even sideways movements (the price of the Underlying rises and falls alternately) in the Underlying may result in price losses. The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.

### (a) Risk factors due to leverage effect

Factor Warrants Long track a leveraged investment in the Underlying. The leverage effect occurs with either positive or negative movements in the price of the Underlying, having a disproportionate effect on the value of the Factor Warrants Long. This means that a negative movement in the price of the Underlying (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Factor Warrants Long. The investor must consider that even sideways movements (the price of the Underlying rises and falls alternately) in the Underlying may result in price losses: In the course of the daily calculation of the Factor Warrants Long, the effect of the leverage effect is that the daily movement in the price of the Underlying is magnified by the degree of leverage. The Factor Warrants Long will have lost value if the price of the Underlying falls on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. The Factor Warrants Long therefore "realise" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price, which then serves as the basis for the subsequent calculation of the Factor Warrants Long. This effect of the leverage also means that an investor in a Factor Warrant Long can suffer a significant fall in value even though the price of the Underlying has not changed materially. **The** higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.

Factor Warrants Short inversely track a leveraged investment in the Underlying. The leverage effect occurs with either positive or negative movements in the price of the Underlying, having a disproportionate effect on the value of the Factor Warrants Short. This means that a positive movement in the price of the Underlying (which is unfavourable for the investor) will result in a disproportionately negative change in the value of the Factor Warrants Short. The investor must consider that even sideways movements (the price of the Underlying rises and falls alternately) in the Underlying may result in price losses: In the course of the daily calculation of the Factor Warrants Short, the effect of the leverage is that the daily movement in the price of the Underlying is magnified by the degree of leverage. The Factor Warrants Short will have lost value if the price of the Underlying rises on one day and returns to its initial value on the next day – and the loss will be greater the higher the leverage is. The Factor Warrants Short therefore "realise" the daily (leveraged) gains and losses as a result of the daily determination of a new closing price, which then serves as the basis for the subsequent calculation of the Factor Warrants Short. This effect of the leverage also means that the investor in a Factor Warrant Short can suffer a significant fall in value even though the price of the Underlying has not changed materially. The higher the leverage, the more volatile the sideways movement and the longer the holding period with regard to the Factor Warrants the greater the loss.

## (b) Risk factors due to factors that are considered in the course of the daily adjustment

In the case of Factor Warrants Long, capital costs that would be incurred to finance the corresponding investment in the Underlying are considered in the course of the adjustment of the Multiplier. Therefore, the consideration of such costs reduces the value of the Factor Warrants.

In the case of Factor Warrants Short, the income and expenses that would arise from acquiring the Underlying, selling it and investing the proceeds at the risk-free rate are considered in the course of the adjustment of the Multiplier. If the acquisition costs exceed the interest income based on the relevant Reference Rate on a particular day, the value of the Factor Warrants is reduced on such day.

In connection with the daily adjustments the following risks should be taken into account:

### • Risk factors due to consideration of a Roll Over Spread

The investor must consider that in relation to the Factor Warrants an ongoing Roll Over Spread may be deducted in connection with the calculation of the Factor Warrants. The Issuer and/or Calculation Agent has the right to adjust the Roll Over Spread during the term of the Factor Warrants. The deduction of the Roll Over Spread generally results in a reduction in the value of the Factor Warrants.

### • Risk factors due to consideration of the Interest Margin

The investor must consider that in connection with the adjustment of the Strike an Interest Margin is taken into account that is determined by the Issuer. The Issuer and/or the Calculation Agent has the right to adjust the Interest Margin during the term of the Factor Warrants. The consideration of the Interest Margin generally results in a reduction in the value of the Factor Warrants.

### • Specific risk factors for Factor Warrants Long

In the case of Factor Warrants Long (which replicate a long strategy), an investor would have to borrow money. The (theoretical) interest payable is included in the calculation of Factor Warrants Long. If the interest rate for overnight money rises sharply and/or the credit worthiness (or rating) of the respective investor deteriorates and the financing spread rises as a result, this may have the effect of substantially reducing the value of the Factor Warrants Long.

### • Specific risk factors for Factor Warrants Short on shares

In the case of Factor Warrants Short (which replicate a short strategy), an investor would have to borrow shares in order to sell them short. A fee would need to be paid for such borrowing of shares, determined by supply and demand for the share. This (theoretical) fee is included in the calculation of Factor Warrants Short. In the event of a shortage of shares available for borrowing (e.g. declining liquidity as the result of a takeover offer or in anticipation of one), there may be a jump in this fee which may then result in a reduction in the value of the Factor Warrants Short.

### • Change in the tax treatment of dividends

A change in the tax treatment of dividends (from the point of view of the Issuer and/or Calculation Agent) may mean that the Issuer and/or Calculation Agent will no longer include dividends distributed on shares in the calculation of the Factor Warrants in the same amounts as before. This may have the effect of reducing the value of the Factor Warrants.

### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Factor Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Factor Warrants.

Factor Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Factor Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Factor Warrants.

The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Factor Warrants compared to a direct investment in the Underlying. As a rule,

the following applies: If the price of the Underlying of a Factor Warrant Long declines, the price of the Factor Warrant Long declines disproportionately. If the price of the Underlying of a Factor Warrant Short rises, the price of the Factor Warrant Short falls disproportionately. The greater the leverage effect of the Factor Warrants, the higher the risk of losses. Due to the leverage effect Factor Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

Adjustment, replacement or determination of certain parameters relevant for the daily adjustment of the Multiplier, Strike and/or Stop-Loss Barrier in the reasonable discretion of the Issuer and/or Calculation Agent

The Issuer and/or Calculation Agent is entitled to adjust, replace or determine parameters relevant for the regular adjustment of the Multiplier, Strike and/or Stop-Loss Barrier in its reasonable discretion and any such discretionary determination could have a negative impact on the value of and return on the Factor Warrants.

Pursuant to the Conditions the Issuer and/or the Calculation Agent has the right to adjust, replace or determine certain parameters relevant for the daily adjustment of the Multiplier, Strike and/or the Stop-Loss Barrier. In particular, the Issuer and/or Calculation Agent may be entitled to (i) adjust the Interest Margin up to the Maximum Interest Margin; (ii) adjust the Roll Over Spread up to the Maximum Roll Over Spread; (iii) replace the Reference Rate specified in the relevant Final Terms by another rate during the term of the Factor Warrants; or (iv) determine the Dividend Factor relevant for the impact of the dividend consideration. The adjustments, replacements or determinations specified above will be made by the Issuer and/or the Calculation Agent in its reasonable discretion, taking into account, if applicable, prevailing market conditions, volatility of the Underlying and/or taxes or charges payable by the Calculation Agent or companies affiliated with it on the cash dividends or cash distributions equivalent to dividends distributed. Any such discretionary determination by the Issuer and/or Calculation Agent could have a negative impact on the value of and return on the Factor Warrants.

### Risks relating to the term of the Factor Warrants

Factor Warrants do not have a fixed term; Security Holders bear the risk that the term ends in the case of an ordinary or extraordinary termination or in the case of the occurrence of a Knock-Out Event.

Factor Warrants do not have a fixed term. The term ends either:

- (a) if a Knock-Out Event occurs, or
- (b) if the Factor Warrants are exercised by the Security Holder, or
- (c) if the Factor Warrants are terminated by the Issuer pursuant to the Conditions.

Therefore, Security Holders should not rely on being able to hold a position in the Factor Warrants for an extended period of time. Security Holders should note that if a Knock-Out Event occurs prior to or on the Termination Date the Knock-Out Event will override the termination by the Issuer.

### 3.15. Product No. 15. Risk factors applicable to Down & Out Put Warrants

### Risk of total loss

In the case of Down & Out Put Warrants there is a risk that the Security Holder suffers a total loss of the capital invested. A total loss occurs if the difference between the Strike and the Reference Price is negative or zero or in the case of the occurrence of a Knock-Out Event.

Down & Out Put Warrants are characterized by the fact that a total loss occurs in two cases: If the difference between the Strike and the Reference Price is negative or zero, the Settlement Amount is also zero. The Settlement Amount is also zero in the case of the occurrence of a Knock-Out Event.

A Knock-Out Event occurs, if a level of the Underlying defined in the applicable Final Terms reaches or falls below a predefined price or value threshold (the so-called "**Knock-Out Barrier**"). The Security Holder must always be aware that even a single reaching or falling below of the Knock-Out Barrier of the value of the Underlying leads to the occurrence of a Knock-Out Event.

An important factor for determining the probability of an occurrence of a Knock-Out Event is the volatility of the Underlying. The term "volatility" means the fluctuation range or the price fluctuation of the Underlying. The higher the volatility of an Underlying, the higher the risk for the Security Holder that a Knock-Out Event occurs.

### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Down & Out Put Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Down & Out Put Warrants.

Down & Out Put Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Down & Out Put Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Down & Out Put Warrants. The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Down & Out Put Warrants compared to a direct investment in the Underlying. The greater the leverage effect of the Down & Out Put Warrants, the higher the risk of losses. Due to the leverage effect the Down & Out Put Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

### Risk factors relating to limitation of Settlement Amount

#### The yield on the Securities has an upper limit as the Settlement Amount is limited.

Security Holders should also note that in the case of Down & Out Put Warrants the Settlement Amount is limited. The maximum amount the Security Holder may receive equals - if the applicable Final Terms provide for a Multiplier - the difference between the Strike and the Knock-Out Barrier (taking into account the Multiplier) or – if the applicable Final Terms provide for a Nominal and/or Calculation Amount – the product of the Nominal and/or Calculation Amount

and the quotient of (i) the difference between the Strike and the Knock-Out Barrier and (ii) the Initial Reference Price. Thus, the possible yield on Down & Out Put Warrants has an upper limit.

### 3.16. Product No. 16. Risk factors applicable to Up & Out Call Warrants

#### Risk of total loss

In the case of Up & Out Call Warrants there is a risk that the Security Holder suffers a total loss of the capital invested. A total loss occurs if the difference between the Reference Price and the Strike is negative or zero or in the case of the occurrence of a Knock-Out Event.

Up & Out Call Warrants are characterized by the fact that a total loss of the capital invested occurs in two cases: If the difference between the Reference Price and the Strike is negative or zero, the Settlement Amount is also zero. The Settlement Amount is also zero in the case of the occurrence of a Knock-Out Event.

A Knock-Out Event occurs, if a level of the Underlying defined in the applicable Final Terms reaches or exceeds a predefined price or value threshold (the so-called "**Knock-Out Barrier**"). The Security Holder must always be aware that even a single reaching or exceeding of the Knock-Out Barrier of the value of the Underlying leads to the occurrence of a Knock-Out Event.

An important factor for determining the probability of an occurrence of a Knock-Out Event is the volatility of the Underlying. The term "volatility" means the fluctuation range or the price fluctuation of the Underlying. The higher the volatility of an Underlying, the higher the risk for the Security Holder that a Knock-Out Event occurs.

### Disproportionate risk of loss due to the leverage effect

The Security Holder bears the risk of strong price fluctuations of Up & Out Call Warrants whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Up & Out Call Warrants.

Up & Out Call Warrants are particularly risky financial instruments whereby in particular the leverage effect is a risk-increasing feature which has to be taken into account for Up & Out Call Warrants. Leverage effect means that a change in the value of the Underlying leads to a disproportionate change in the price of the Up & Out Call Warrants. The leverage effect results from the fact that the Security Holder has to invest a lower capital for an investment in Up & Out Call Warrants compared to a direct investment in the Underlying. The greater the leverage effect of the Up & Out Call Warrants, the higher the risk of losses. Due to the leverage effect the Up & Out Call Warrants involve disproportionate risks of loss compared to a direct investment in the Underlying (risk of total loss).

### Risk factors relating to limitation of Settlement Amount

### The yield on the Securities has an upper limit as the Settlement Amount is limited.

Security Holders should also note that in the case of Up & Out Call Warrants the Settlement Amount is limited. The maximum amount the Security Holder may receive equals - if the applicable Final Terms provide for a Multiplier - the difference between the Knock-Out Barrier and the Strike (taking into account the Multiplier) or – if the applicable Final Terms provide for a

Nominal and/or Calculation Amount – the product of the Nominal and/or Calculation Amount and the quotient of (i) the difference between the Knock-Out Barrier and the Strike and (ii) the Initial Reference Price. Thus, the possible yield on Up & Out Call Warrants has an upper limit.

### 4. Risk factors in relation to the type of the Underlying and/or Basket Component

The Securities issued under the Base Prospectus may be linked to Indices, Shares or Securities representing Shares, Shares of an Exchange Traded Fund, Foreign Exchange Rates, Commodities or Futures Contracts as Underlying or (in the case of a Basket as Underlying) Basket Component. The specific material risks that are associated with an investment in one of these asset classes, in particular risks that affect the price or level of the relevant Underlying and/or Basket Component, are described in this category. The specific material risks are described for each asset class in a separate sub-category.

The risks related to another category of asset class can also be relevant for the Underlying and/or of a Security, if indirect investments are made (e.g. for an index whose index components are shares the same risks associated with an investment in shares can be realized).

### 4.1. Risks associated with Indices as Underlying or Basket Component

The specific material risks associated with Indices as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

*a)* Risks in connection with the price of the relevant index

An adverse price development of the components of the Index may adversely affect the price development of the Index and, accordingly, the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

Securities that are linked to an Index as Underlying or Basket Components are associated with risks for the Security Holders comparable to those of a direct investment in a comparable portfolio of asset classes underlying the respective Index, e.g. equity indices are comprised of a synthetic portfolio of shares. The development of the price of the Index depends on the individual index components of which the relevant Index is comprised. The development of the price of the individual index components depends on macroeconomic factors, such as interest rates and price levels on the capital markets, currency developments, political factors as well as, in the case of shares as index components, company-specific factors such as earnings position, market position, risk situation, shareholder structure and distribution policy. In the case of an adverse development of such macroeconomic factors this may adversely affect the price development of the index components and the Index as a whole and accordingly, the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

### b) Risks of loss of return of dividends

The Security Holder will principally not participate in dividends or other distributions paid on the Index components.

The rules governing the composition and calculation of the relevant Index might stipulate that dividends distributed on the Index components do not lead to a rise in the index level, for example, if it is a "price" index, which may lead to a decrease in the index level if all other circumstances remain the same. Security Holders of Securities in respect of which an Underlying is such type of Index, will not participate in dividends or other distributions paid on the Index components. Even if the rules of the relevant underlying Index provide that distributed dividends or other distributions of the components are reinvested in the Index and therefore result in raising its level, in some circumstances the dividends or other distributions may not be fully reinvested in such Index.

c) Risks related to the change in the composition, calculation or discontinuance of an Index

Changes in the composition or calculation or dissemination of an Index by the Index Sponsor may adversely affect the value of the Index and in turn the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

The Index Sponsor of an Index can add, delete or substitute the components of such Index or make other methodological changes that could change the level of one or more components of the Index. The changing of components of any Index may adversely affect the level of such Index (e.g. a newly added company and/or component may perform significantly worse than the company and/or constituent it replaces), which in turn may adversely affect the value of the Index and/or the value of the Securities and/or the Settlement Amount and/or other payments or deliveries under the Securities.

The Index Sponsor of any such Index may also alter, discontinue or suspend calculation or dissemination of such Index. The Index Sponsor of an Index will have no involvement in the offer and sale of the Securities and will have no obligation to any Security Holder. The Index Sponsor of an Index may take any actions in respect of such Index without regard to the interests of the Security Holder, and any of these actions could adversely affect the value of the Security and/or payments or other deliveries under the Securities.

### d) Risks associated with index fees

If the Index underlying the Securities includes index fees that are deducted by the Index Sponsor when calculation the index level this reduces the level of the relevant Index and accordingly the value of the Securities linked to such Index.

The respective Index may, as specified in the description of the relevant Index, include index fees that are deducted by the Index Sponsor when calculating the index level, and which therefore reduce the level of the relevant Index and the value of the Securities linked to the Index. This will also have a corresponding adverse effect on pricing in the secondary market during the term of the Securities. If so provided in the description of the respective Index, the index fees may be changed up to a maximum of the upper limit specified in the description of the relevant Index. Investors therefore cannot assume that the index fees will remain unchanged. An increase in the index fees will have an adverse effect on the level of the respective Index and therefore also on the value of the Securities linked to the Index.

e) Risks associated with exchange traded futures and options contracts on underlying indices

In the case of Securities linked to exchange traded futures and options contracts on one or more indices (index-linked derivative contracts), the Settlement Amount is determined either on the basis of the index-linked derivative contract or on the basis of the underlying index. An adverse performance of the relevant index-linked derivatives contracts or the underlying index may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Where the Securities reference exchange traded futures and options contracts on one or more Indices ("index-linked derivatives contracts"), the Settlement Amount payable on the Securities is exposed to the performance of the index-linked derivatives contracts as well as, in the case the final official settlement price or the daily settlement price of the index-linked derivatives contracts is not published, the performance of the index underlying the index-linked derivatives contracts. An adverse performance of the relevant index-linked derivatives contracts and/or an adverse performance of the Index underlying the index-linked derivatives contracts may adversely affect in turn the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Index-linked derivatives contracts may be traded on the relevant futures or options exchanges and may be standardised with respect to the number of futures or options covered by one index-linked derivatives contract, the term of each index-linked derivatives contract, the dates on which various index-linked derivatives contracts expire and the manner in which the settlement amount is calculated. Index-linked derivative contracts are structured as follows

- An options contract linked to an index is a contract where the buyer of the options contract purchases the right to a potential payment from the seller of the option, depending on the level of the index. The sum that a buyer of an options contract pays to purchase the options contract is usually known as the premium, and options contracts will usually be call options, where the buyer will receive payment under the options contract if the level of the index on one or more specified dates is above a specified level (known as the strike), or put options, where the buyer will receive payment under the options contract if the level of the Index on one or more specified dates is below the strike.
- A cash settled futures contract linked to an index is a futures contract where, depending on the level of the index, the buyer of the futures contract either has a right to receive a payment (known as the settlement amount) from the seller of the futures contract or an obligation to make a payment to the seller of the futures contract. If the level of the Index on one or more specified dates (the "settlement price") is greater than a specified level in the contract (the "forward price"), then the seller shall pay to the buyer the difference between the settlement price and the forward price. If the settlement price is less than the forward price, the buyer of the futures contract will make a payment to the seller of the futures contract equal to such difference.

There may be a correlation between the day to day change in the level of an index and the price at which an index-linked derivatives contract trades on the relevant futures or options exchange. However, the expectations of dealers in index-linked derivatives contracts of the level of the index on the date(s) on which the settlement amount of an index-linked derivatives contract is determined may also have an impact on the price of an index-linked derivatives contract on the Index:

- If, for example, the expectation of dealers in options contracts is that the level of the index will be lower on a future date when the settlement amount of the options contract is to be determined than the current level of the index, this may result in the price of the options contract falling (in the case of a call option) or rising (in the case of a put option) even where the current level of the Index is rising. Moreover, because the settlement amount of many options contracts is a multiple of the difference between the level of the index on a future date and the strike, a relatively small change in the level of an index may result in a proportionately much larger change in the price of the options contract.
- If the expectation of dealers in futures contracts is that the settlement price of the index on the date(s) on which the settlement amount of the futures contract is determined will be lower than the forward price of the Index specified in the contract, this may result in the price of the futures contract falling (in the case of buyers of the futures contract) or rising (in the case of sellers of the futures contract) even where the current level of the index is rising. Moreover, because the settlement amount of many futures contracts is a multiple of the difference between the settlement price and the forward price, a relatively small change in the level of an index may result in a proportionately much larger change in the price of the futures contract.

# 4.2. Risks associated with Shares or Securities representing Shares as Underlying or Basket Component

The specific material risk factors associated with Shares or Securities representing Shares as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the issuer. The most material risks are mentioned first.

### a) Risks in connection with the price of the relevant share

An adverse development of the macroeconomic factors may have an adverse impact on the price development of the share price and accordingly adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities. Security Holders will usually not participate in dividends or other distributions paid on a Share.

The development of the share price cannot be predicted and is determined by macroeconomic factors, e.g. the interest rate and price level on capital markets, currency developments, political circumstances, as well as company-specific factors such as e.g. the earnings situation, market position, risk situation, shareholder structure and distribution policy. In the event of an adverse development of the relevant macroeconomic factors, this may have an adverse effect on the price development of the share price and accordingly may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

In the case that the share forming the Underlying is a Real-Estate-Investment-Trust (REITs stock companies investing in real estate industry), the securities are subject to the risks of the cyclical nature of real estate values, general and local economic conditions, overbuilding and increased competition, increases in property taxes and operating expenses, demographic trends and variations in rental income, changes in zoning laws, casualty or condemnation losses, environmental risks, regulatory limitations on rents, changes in neighbourhood values, changes in the appeal of properties to tenants, increases in interest rates and other real estate capital market influences. All these factors may have a negative impact on the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Unless the applicable Final Terms specify that the Dividend Amount Provisions are applicable (or otherwise provide for the payment of dividends), Security Holders of Securities in respect of which an Underlying and/or Basket Component is a Share will not participate in dividends or other distributions paid on such Share. Therefore, the return on such Securities will not reflect the return a Security Holder would have realised had he or she actually owned such shares and received the dividends on them. Further, even where the relevant Final Terms specify that the Dividend Amount Provisions are applicable (or otherwise provide for the payment of dividends), Security Holders shall have no rights or other claim on any actual dividends paid on the relevant shares.

The issuer of a share will have no involvement in the offer and sale of the Securities and will have no obligation to any Security Holders. The issuer of a share may take any actions in respect of such share, such as, inter alia, decisions about dividend payments, capital increases or share buy backs, without regard to the interests of the Security Holders. Any of these actions could have a negative effect on the share price and accordingly may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

### b) Additional risks in relation to Securities representing Shares

Payments under Securities linked to Securities representing Shares are not identical to payments that the Security Holder would have received if he had invested directly in the share underlying the Securities representing Shares. An investment in a Security representing Shares involves additional risks compared to an investment directly in the share underlying the Securities representing Shares.

Security Holders of Securities that are linked to Securities representing Shares (mostly in the form of American Depositary Receipts ("ADRs") or Global Depositary Receipts ("GDRs"), together "Depositary Receipts") generally bear the same risk as holders of the Shares underlying the Depositary Receipts. ADRs are securities which are issued in the United States of America in the form of share certificates in a portfolio of shares which is held in the country of domicile of the issuer of the underlying shares outside the United States of America. GDRs are also securities in the form of share certificates in a portfolio of shares which are held in the country of domicile of the issuer of the underlying shares. As a rule they are distinguished from share certificates referred to as ADRs in that they are normally publicly offered and/or issued outside the

United States of America. Compared to a direct investment in Shares, such Securities representing Shares may involve additional risks:

- Each Depositary Receipt represents one or more shares or a fraction of the security of a foreign stock corporation. The legal owner of shares underlying the Depositary Receipts is the custodian bank which at the same time is the issuing agent of the Depositary Receipts. Depending on the jurisdiction under which the Depositary Receipts have been issued and the jurisdiction to which the custodian agreement is subject, it is possible that the corresponding jurisdiction will not recognise the purchaser of the Depositary Receipts as the actual beneficial owner of the underlying shares. In particular, in the event that the custodian becomes insolvent or that enforcement measures are taken against the custodian, it is possible that an order restricting free disposition may be issued with respect to the shares underlying the Depositary Receipts or these shares may be realised within the framework of an enforcement measure against the custodian. If this is the case, the purchaser of the Depositary Receipts will lose its rights under the underlying shares securitised by the Depositary Receipt. As a consequence, the Securities that are linked to these Depositary Receipt will become worthless. In such a case the Security Holder is exposed to the risk of a total loss of the capital invested.
- Payments under the Securities that reference Depositary Receipts may not reflect the
  return that a Security Holder would realise if it actually owned the relevant shares
  underlying the Depositary Receipts and received the dividends paid on those shares
  because the price of the Depositary Receipts on a relevant reference date may not take
  into consideration the value of dividends paid on the underlying shares.
- The issuer of the underlying shares may make distributions in respect of its shares that are not passed on to the purchasers of its Depositary Receipts, which can negatively affect the value of the Depositary Receipts and the Securities.
- Fees charged by the custodian, which is generally located in the home country of the issuer of the shares, and by the custodian may have a negative impact on the value of the Depositary Receipt and the Securities.
- Securities representing shares and the underlying shares may be traded in different currencies. Exchange rate fluctuations between those currencies may have a negative impact on the value of the securities representing shares and the Securities.

# 4.3. Risks associated with Exchange Traded Funds (ETFs) as Underlying or Basket Component

The specific material risk factors associated with ETFs as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

### a) Risks of unpredictable factors

An adverse development of company or macroeconomic factors, may have an adverse effect on the price development of the Exchange Traded Fund price and accordingly on the market value of the Securities and accordingly may adversely affect the value of the

Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities. The yield of a Security linked to an Exchange Traded Fund may be lower than a direct investment in such index or shares comprising the Exchange Traded Fund.

An Exchange Traded Fund, an "ETF underlying index"), or the performance of certain assets, contracts and/or instruments which may be invested in or held by the Exchange Traded Fund. Security Holders of Securities that are linked to ETFs generally bear the same risk as an investor in the index or the assets, contracts and/or instruments underlying the ETF. Thus, the performance of an Exchange Traded Fund may be dependent upon company-specific factors such as earnings position, market position, risk situation, shareholder structure and distribution policy of the underlying companies that comprise the ETF underlying index of such Exchange Traded Fund, or upon the value of such assets, contracts and/or instruments invested in, held by or tracked by the Exchange Traded Fund as well as macroeconomic factors, such as interest and price levels on the capital markets, currency developments and political factors. In the event of an adverse development of the relevant company and macroeconomic factors, this may have an adverse effect on the price development of the ETF price and accordingly may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

However, an investment in the Securities which are linked to an Exchange Traded Fund is not the same as a direct investment in any ETF underlying index, or the shares of the underlying companies comprising the ETF underlying index, or any assets, contracts and/or instruments which may be invested in or held by the Exchange Traded Fund. Fees charged by the investment manager of the Exchange Traded Fund may adversely affect the performance of the fund as compared to the ETF underlying index. The net asset value of the shares in an Exchange Traded Fund may be calculated by reference to the levels of the shares of the underlying companies comprising the ETF underlying index of such Exchange Traded Fund, without taking into account the value of dividends paid on those underlying shares (where the Exchange Traded Fund seeks to track the performance of the ETF underlying index), or by reference to the value of such assets, contracts and/or instruments invested in or held by the Exchange Traded Fund as specified in its prospectus or constitutive documents. Therefore, an investment in an ETF may result in a lower yield than a direct investment in the index and/or shares underlying the ETF.

*Risks related to the change in the composition or discontinuance of the Exchange Traded Fund(s)* 

Changes in the composition, calculation or dissemination of the Exchange Traded Fund or the index underlying the Exchange Traded Fund could adversely affect may adversely affect the value of the Exchange Traded Fund and/or in turn the Settlement Amount and/or any other payments or deliveries under the Securities.

The Issuer and the Calculation Agent have no influence on the composition or performance of any Exchange Traded Fund or any index that such Exchange Traded Fund is intended to replicate. The management company or the licensor or the index sponsor of an ETF underlying index can add, delete or substitute the assets included in such index, respectively, or make methodological changes that could affect the value of such Exchange Traded Fund or of such ETF

underlying index, respectively. Such changes of assets included in the portfolio of an Exchange Traded Fund or in an ETF underlying index, respectively, may affect the value of such Exchange Traded Fund and accordingly may adversely affect the value of the Securities and/or the Settlement Amount and/or any other payments or deliveries under the Securities, as e.g. a newly added asset may perform significantly worse than the asset it replaces.

The management company or licensor or index sponsor of any ETF underlying index may also alter, discontinue or suspend calculation or dissemination of information on such Exchange Traded Fund or such ETF underlying index, respectively. The management company and licensor/index sponsor of such ETF underlying index are not involved in the offer and sale of the Securities and have no obligation to invest therein. The management company and licensor/index sponsor of such ETF underlying index may take any actions in respect of such Exchange Traded Fund or such ETF underlying index, respectively, without regard to the interests of the investors in Securities, and any of these actions may adversely affect the value of the ETF and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Furthermore, it should be noted the performance of an Exchange Traded Fund will not necessarily identical to the performance of the assets included in the portfolio of the Exchange Traded Fund(s) or which the Exchange Traded Fund intends to replicate, respectively, due to many factors.

The Issuer and/or Guarantor gives no assurance that all events occurring prior to the issue date of the Securities that would affect the trading price of the relevant Exchange Traded Fund will have been publicly disclosed. Subsequent disclosure of any such events or the disclosure of or failure to disclose material future events concerning the share issuer may adversely affect the value of the shares in an Exchange Traded Fund and therefore the value of the Exchange Traded Fund and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

### c) Risks related to adjustments of the price of an exchange traded fund

If the ETF underlying index is changed or the Exchange Traded Fund is modified, the Calculation Agent may make calculations and adjustments of the price of an exchange traded fund which may adversely affect the value of the shares in an Exchange Traded Fund and therefore the value of the share of an Exchange Traded Fund and in turn the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

If at any time the ETF underlying index is changed in a material respect, or if the Exchange Traded Fund in any other way is modified so that it does not, in the opinion of the Calculation Agent, fairly represent the net asset value of the Exchange Traded Fund had those changes or modifications not been made, then, from and after that time, the Calculation Agent will make those calculations and adjustments as may be necessary in order to arrive at a price of an exchange traded fund comparable to the Exchange Traded Fund, as if those changes or modifications had not been made, and calculate the closing prices with reference to the Exchange Traded Fund, as adjusted. Accordingly, if the Exchange Traded Fund is modified in a way that the price of its shares is a fraction of what it would have been if it had not been modified (for example, due to a split or a reverse split), then Goldman Sachs will adjust the price in order to arrive at a

price of the Exchange Traded Fund as if it had not been modified (for example, as if the split or the reverse split had not occurred). The Calculation Agent may determine that no adjustment is required by the modification of the method of calculation. Any of these calculations and adjustments may adversely affect the value of the shares in an Exchange Traded Fund and therefore the value of the share of an Exchange Traded Fund and in turn the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

### d) Risks in relation to the market price per fund in the Exchange Traded Fund

# The market price per fund in the Exchange Traded Fund may develop adversely during a trading day, which in turn may have an adverse effect on the value of the Security.

The market price per fund in the Exchange Traded Fund may, due to the forces of supply and demand, as well as liquidity and scale of trading spread in the secondary market, diverge from their net asset value, i.e., the market price per fund in the Exchange Traded Fund could be lower than its net asset value, and will fluctuate during the trading day. This may adversely affect the market price per fund in the Exchange Traded Funds and this in turn may adversely affect the value of the share of an Exchange Traded Fund and the value of the Security and in turn the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

#### e) Risks in relation to diverse assets

The performance of one or more lower diversified Exchange Traded Fund(s) may be more volatile, which may adversely affect the value of the Exchange Traded Fund and, accordingly, the value of the Securities, as well as the Settlement Amount and other payments or deliveries under the Securities.

Security Holders in Securities linked to Exchange Traded Fund(s) with a portfolio of assets that are concentrated in the assets of a particular industry or group of industries should be aware that the performance of such Exchange Traded Fund(s) could be more volatile than the performance of Exchange Traded Funds with portfolios of more diverse assets. This may adversely affect the market price per fund in the Exchange Traded Funds and this in turn may adversely affect the value of the share of an Exchange Traded Fund and the value of the Security and in turn the value of the Securities and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

### 4.4. Risks associated with Foreign Exchange Rates as Underlying or Basket Component

The specific material risk factors associated with Foreign Exchange Rates as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

a) Risks related to the price development of the relevant foreign exchange rate

The development of the price of Foreign Exchange Rates depends on a variety of economic factors and in the event of an adverse development of these factors, the value of the Foreign Exchange Rates and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or other deliveries under the Securities may be adversely affected.

The performance of foreign exchange rates is dependent upon the supply and demand for currencies in the international foreign exchange markets, which are subject to economic factors, including inflation rates in the countries concerned, interest rate differences between the respective countries, economic forecasts, international political factors, currency convertibility and safety of making financial investments in the currency concerned, speculation and measures taken by governments and central banks. Such measures include, without limitation, imposition of regulatory controls or taxes, issuance of a new currency to replace an existing currency, alteration of the exchange rate or exchange characteristics by devaluation or revaluation of a currency or imposition of exchange controls with respect to the exchange or transfer of a specified currency that would affect exchange rates as well as the availability of a specified currency. Foreign exchange rates reflect the value ratio of one specific currency to a different currency. In international foreign exchange trading, where a specific currency is traded against another, the currency being traded is referred to as the "Base Currency", while the currency which states the price for the Base Currency, is referred to as "Reference Currency". For example, the foreign exchange rate "EUR/USD 1.1888" indicates that USD 1.1888 (= Reference Currency) has to be paid to purchase one Euro (= Base Currency). An increase in this foreign exchange rate therefore means an increase of the Euro compared to the US-Dollar. Conversely, the foreign exchange rate "USD/EUR 0.8412" indicates that EUR 0.8412 has to be paid to purchase one US-Dollar. An increase in this foreign exchange rate therefore means an increase in the US-Dollar compared to the Euro. The value of foreign exchange rates are published on screen pages of renowned financial information services (such as e.g. Reuters or Bloomberg) or official determined by central banks (such as the European Central Bank). If a foreign exchange rate is not available on a financial information services, the price can be determined indirectly by using two foreign exchange rate pairs, each of which contains a currency of the foreign exchange rate pair underlying the Securities as well as a common reference currency. The price of the foreign exchange is determined by making a cross rate calculation of these two foreign exchange rates.

In the event of an adverse development of the factors described above affecting the development of a Foreign Exchange Rate, this may adversely affect the value of the Foreign Exchange Rates and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

### b) Risks related to the price development of the relevant commodity

Manipulations of the fixing of foreign exchange rates may have an adverse effect on the relevant foreign exchange rate and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities may be adversely affected.

Investors should note that the fixing of foreign exchange rates was manipulated by agreements between market participants in the past. The Issuer cannot exclude the possibility that

manipulations of the fixing of foreign exchange rates will arise in the future. In the case of manipulations this may have an adverse effect on the respective value of the foreign exchange rate and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

### 4.5. Risks associated with Commodities, Commodity Indices or Futures Contracts for Commodities as Underlying or Basket Component

The specific material risk factors associated with Commodities, Commodity Indices or Futures Contracts for Commodities as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

### a) Risks affecting the performance of Commodities

The price development of commodities depends on a variety of factors and in the event of an adverse development of these factors, the price of the commodity and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities may be adversely affected.

Price risks of raw materials and/or commodities (for example mineral commodities (such as oil, gas, aluminium and copper), agricultural products (such as wheat and corn) and precious metals (such as gold and silver)) are often complex. The prices are subject to greater fluctuations (volatility) than those of different investment categories. Commodity markets particularly have a lower liquidity than bond, foreign currency and stock markets. Changes in supply and demand therefore have a more drastic effect on prices and volatility of Commodities, which in turn may adversely affect the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Below are some key factors that are reflected in commodity prices:

### (i) Supply and demand

The planning and management of commodities supplies is very time-consuming. This means that the scope for action on the supply side is limited and it is not always possible to adjust production swiftly to take account of changed demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where these are needed also affect their prices. The fact that some commodities follow a cyclical pattern, such as agricultural products which are only produced at certain times of the year, can also result in major price fluctuations.

### (ii) Direct investment costs

Direct investments in commodities involve storage, insurance and tax costs. Moreover, no interest or dividends are paid on commodities. The total returns from commodities investments are therefore influenced by these factors.

### (iii) Liquidity

Not all commodities markets are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants active in the commodities markets means that large speculative investments can have negative consequences and may distort prices.

### (iv) Weather and natural catastrophes

Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices for agricultural products.

(v) Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts

Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

### (vi) Taxes and duties

Changes in tax rates and customs duties may have a positive or a negative impact on the profitability margins for commodities producers. If these costs are passed on to buyers, these changes will affect the prices of the relevant commodities.

#### b) Risks in relation to Limit Prices

Limit prices may have the effect of precluding trading in a particular contract, which could adversely affect the value of the commodity and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities may be adversely affected.

The commodity markets are subject to temporary distortions or other disruptions due to various factors, including the lack of liquidity in the markets and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in contract prices which may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price". Once the limit price has been reached in a particular contract, trading in the contract will follow the regulations set forth by the trading facility on which the contract is listed. Limit prices may have the effect of precluding trading in a particular contract, which could adversely affect the value of the commodity and, accordingly, the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities may be adversely affected.

### c) Risks in relation to legal and regulatory changes

Commodities are subject to legal and regulatory regimes and any change in these regimes may result in adjustments to the Conditions and/or early redemption of the Security, which may also have a negative impact on the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, other countries. The relevant legal and regulatory regimes may change in ways that could affect the ability of the Issuer and/or any entities acting on behalf of the Issuer engaged in any underlying or hedging transactions in respect of the Issuer's obligations in relation to the Securities to hedge the Issuer's obligations under the Securities. This could lead in adjustments to the Conditions of the Security and, and/or to an early redemption of the Security or to the adjustment to the Conditions of the Securities which may also have a negative impact on the value of the Security and/or the Settlement Amount and/or any other payments or deliveries under the Securities.

### d) Specific risks affecting Commodity Indices

The development of the price of Commodity Indices is subject to fluctuations which may have a negative effect on the value of the Security and/or the Settlement Amount and/or any other payments or other deliveries under the Securities.

Commodity Indices track the performance of a synthetic production-weighted basket of commodity contracts on certain physical commodities. The level of Commodity Indices replicates an actual investment in commodity contracts, and therefore goes up or down depending on the overall performance of the weighted basket of commodity contracts. In principle, Commodity Indices track the performance of the commodity markets in a manner similar to the way in which an index of equity securities tracks the performance of the share market, unlike shares, commodity contracts expire periodically and, in order to maintain an investment in commodity contracts, it is necessary to liquidate such commodity contracts before they expire and establish positions in longer-dated commodity contracts ("**Rolling**"). This feature of a Commodity Index has important implications for changes in the value of a Commodity Index which in turn affects the value of the Security and/or the payment and/or any other deliveries under the Securities.

A purchaser of commodity contracts or of an index of commodity contracts can be indirectly exposed to these costs, which may be reflected in the prices of the commodity contracts and therefore in the level of a Commodity Index. In addition, the fact that commodity contracts have publicly available prices allows calculation of an index based on these prices. The use of commodity contracts, therefore, allows the Commodity Index sponsor to separate the exposure to price changes from the ownership of the underlying physical commodity, and thus allow participation in the upside and downside movement of commodity prices independently of the physical commodity itself.

Since any commodity contract has a predetermined expiration date on which trading of the commodity contract ceases, holding a commodity contract until expiration will result in delivery of the underlying physical commodity or the requirement to make or receive a cash settlement.

"Rolling" the commodity contracts means that the commodity contracts that are nearing expiration (the "near-dated commodity contracts") are sold before they expire and commodity contracts that have contract specifications identical to the near-dated commodity contract except with an expiration date further in the future (the "longer-dated commodity contracts") are bought. This would allow an actual purchaser to maintain an investment position without receiving delivery of physical commodities or making or receiving a cash settlement. As Commodity Indices replicate an actual investment in commodity contracts, it takes into account the need to roll the commodity contracts included in such Commodity Index. Specifically, as a near-dated commodity contract approaches expiration, the Commodity Index is calculated as if the near-dated commodity contract is sold and the proceeds of that sale are used to purchase a longer-dated commodity contract of equivalent value in the delivery month applicable for such commodity contract included in such Commodity Index.

### (i) Contango

When the price of the near-dated commodity contract is lower than the price of the longer-dated commodity contract, the market for such contracts is referred to as in "contrago" (opposite of "backwardation" (when the price of the near-dated commodity contract is greater than the price of the longer-dated commodity contract)). If the rolling process occurs when the price of a commodity contract is in contango, this results in a smaller quantity of the longer-dated commodity contract being acquired for the same value. Rolling contracts in a contango market can (putting aside other considerations) result in negative "roll yields" which could adversely affect the level of a Commodity Index tied to that contract.

### (ii) Rolling can affect the level of Commodity Index

"Rolling" can affect a Commodity Index in two ways:

Firstly, if the Commodity Index synthetically owns more commodity contracts as a result of the rolling process, albeit at a lower price (backwardation), the gain or loss on the new positions for a given movement in the prices of the commodity contracts will be greater than if the Commodity Index had owned the same number of commodity contracts as before the rolling process. Conversely, if the Commodity Index synthetically owns fewer commodity contracts as a result of the rolling process, albeit at a higher price (contango), the gain or loss on the new positions for a given movement in the prices of the commodity contracts will be less than if the Commodity Index had owned the same number of commodity contracts as before the rolling process. These differentials in the quantities of contracts sold and purchased may have a positive or negative effect on the level of the Commodity Index (measured on the basis of its dollar value).

Secondly, in a contango market, and in the absence of significant market changes, the prices of the longer-dated commodity contracts which the Commodity Index synthetically buys and holds are expected to, but may not, decrease over time as they near expiry. The expected decrease in price of these longer-dated commodity contracts as they near expiry can potentially cause the level of the Commodity Index to decrease. Conversely, in a backwardated market, and in the absence of significant market changes, the prices of the longer-dated commodity contracts are expected to, but may not, increase over time

as they near expiry. The expected increase in price of these longer-dated commodity contracts as they near expiry can potentially cause the level of the Commodity Index to increase.

If the price of the underlying physical commodities increases, the level of the Commodity Index will not necessarily also increase, for two reasons. The Settlement Amount payable on Securities that reference a Commodity Index is linked to the performance of such Commodity Index, which in turn tracks the performance of the basket of commodity contracts included in such Commodity Index, rather than individual physical commodities themselves. Changes in the prices of commodity contracts should generally track changes in the prices of the underlying physical commodities, but, as described above, the prices of commodity contracts might from time to time move in ways or to an extent that differ from movements in physical commodity prices. Therefore, the prices of a particular commodity may go up but the level of the Commodity Index may not change in the same way. Furthermore, because commodity contracts have expiration dates – i.e., dates upon which trading of the commodity contract ceases, there are certain adjustments that need to be made to the Commodity Index in order to retain an investment position in the commodity contracts. These adjustments, which are described below and primarily include the mechanic of "rolling", may have a positive or negative effect on the level of the Commodity Index. As a result, these adjustments may, in certain instances, cause a discrepancy between the performance of the Commodity Index and the performance of the commodity contracts underlying such Commodity Index. Accordingly, Security Holders of Securities that reference Commodity Indices as Underlying may receive a lower payment upon redemption of such Securities than such Security Holder would have received if it had invested directly in commodities underlying such Commodity Indices or a Security whose Settlement Amount was based upon the spot price of physical commodities or commodity contracts that were scheduled to expire on the Settlement Date of the Securities.

Trading in commodities has been and can be extremely volatile. Commodity prices are affected by a variety of factors that are unpredictable, including, without limitation, changes in supply and demand relationships, weather, governmental programs and policies, national and international political, military, terrorist and economic events, fiscal, monetary and exchange control programs, changes in interest and exchange rates and changes, suspensions or disruptions of market trading activities in commodities and related contracts.

These factors may affect the value of Securities linked to a Commodity Index in varying ways, and different factors may cause the value of different commodities underlying a Commodity Index and the volatilities of their prices, to move in inconsistent directions and at inconsistent rates.

e) Risks in relation to the change in composition or discontinuance of a Commodity Index

A change in the composition or discontinuance of the Commodity Index could adversely affect the market value of, and return (if any) on, Securities linked thereto.

A Commodity Index sponsor is responsible for the composition, calculation and maintenance of such Commodity Index. The sponsor of a Commodity Index will have no involvement in the offer and sale of the Securities and will have no obligation to any Security Holder. The sponsor of a Commodity Index may take any actions in respect of such Commodity Index without regard

to the interests of the Security Holders, and any of these actions could adversely affect the market value of the Securities.

The sponsor of any Commodity Index can add, delete or substitute the commodity contracts of such Commodity Index or make other methodological changes that could change the weighting of one or more commodity contracts, such as rebalancing the commodities in the Commodity Index. The composition of a Commodity Index may change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such Commodity Index fail to satisfy such criteria. Such changes to the composition of the Commodity Index may affect the level of such Commodity Index as a newly added commodity contract may perform significantly worse or better than the commodity contract it replaces, which in turn may affect the payments made by the Issuer to the Security Holders. The sponsor of any such Commodity Index may also alter, discontinue or suspend calculation or dissemination of such Commodity Index. In such circumstances, the Calculation Agent would have the discretion to make determinations with respect to the level of the Commodity Index for the purposes of calculating the amount payable on redemption or exercise of the Securities.

f) Risk in relation with commodity contracts that are not traded on regulated futures exchanges

# Commodity contracts that are not traded on regulated futures exchanges could adversely affect the liquidity and price histories of the relevant contracts.

A Commodity Index may not always include exclusively regulated futures contracts and could at varying times include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act of 1936, as amended, or other applicable statutes and related regulations that govern trading on U.S. regulated futures exchanges or similar statutes and regulations that govern trading on regulated U.K. futures exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of contracts on such facilities and the inclusion of such contracts in a Commodity Index may be subject to certain risks not presented by most U.S. or U.K. exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant contracts.

### 4.6. Risks associated with Futures Contracts as Underlying or Basket Component

The specific material risk factors associated with Futures Contracts as Underlying or Basket Component are described in this sub-category. The risks in this sub-category are classified

according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

a) Risk in connection with the price development of the relevant Futures Contract

An adverse change in the price or value of the underlying asset of the Futures Contract may adversely affect the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

The performance of Futures Contracts is influenced in particular by the price or value of the underlying asset (financial instruments (e.g. shares, indices, interest rates, dividends or foreign currencies) – so-called financial futures contracts – or to commodities (e.g. precious metals, wheat, or sugar) – so-called commodity futures contracts). Accordingly, the risks which are relevant for the financial instrument or commodity apply in particular to Futures Contracts. A Futures Contract represents the contractual obligation to purchase or sell a certain quantity of the respective contract object on a fixed date at an agreed price. Futures Contracts are traded on futures exchanges and are standardised with respect to contract size, type and quality of the contract object, and potential places and dates of delivery. General, a close correlation exists between the price development of the financial instrument or commodity underlying the Underlying and/or the Futures Contract on a spot market and the corresponding futures market. However, Futures Contracts are generally traded with a premium or discount compared to the spot price of the underlying financial instrument or commodity. This difference between spot and futures price, which is referred to as "basis" in futures exchange terminology, results on the one hand from the inclusion of costs, which usually arise during spot transactions in the calculation (storage, delivery, insurance, etc.), or of income usually related to spot transactions (interest, dividends, etc.) and on the other hand from the differing valuation of general market factors on the spot and futures market. Furthermore, the liquidity may significantly differ between the spot and the corresponding futures market depending on the financial instrument or commodity. An adverse change in the price or value of the underlying asset of the Futures Contract may adversely affect the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

If the underlying asset of the relevant Futures Contract is a bond, it should be noted that Security Holders are exposed to the risk that the expectation with regard to the interest rate level represented by the bond may change. In this context, falling interest rate expectations usually lead to rising prices while rising interest rate expectations usually lead to falling prices of the relevant Futures Contract. The interest rate level is influenced, among other things, by key interest rates/prime rates, the expected development of the economy, the expected performance of alternative investments (e.g., equities) and the creditworthiness of the issuer of the bond. A change in the expected level of interest rates may have an adverse effect on the price of the Futures Contract and, accordingly, may also adversely affect the value of the Securities and the Settlement Amount.

If the underlying asset of the relevant Futures Contract is a EU emission right, the rights to emit greenhouse gases (e.g. carbon dioxide (CO2)) are issued and regulated under the European Directive 2003/87/EC, as amended (so-called "EU Emission Rights"), i.e. trading in EU Emission Rights is only possible within these framework conditions. The market in EU Emission Rights

is limited. The failure of one or a few market participants can have a significant impact on the availability and trading of EU Emission Rights. Due to the limited market and its special conditions, disruptions in the system or in the settlement of transactions may have unforeseen and disproportionate consequences. In addition, the aforementioned EU Directive may be amended or repealed at any time, which in turn may lead to significant changes in the price of EU emission allowances, the system itself or even the complete discontinuation of the system. Moreover, the price of EU Emission Rights itself is influenced by very specific market mechanisms and external factors. It is highly dependent on the emissions of EU Member States and may change due to factors such as (global) environmental policies, environmental changes, natural disasters, economic crises or the ability of economies to reduce their greenhouse gas emissions. These aspects may adversely affect the price of EU emission allowances and, accordingly, Futures Contracts relating to such EU emission allowances and, accordingly, may adversely affect the value of the Securities and the Redemption Amount.

### b) Risk in connection the rolling of Futures Contracts

### The rolling of a Futures Contract may have an adverse effect on the price of the Security.

Since any futures contract has a predetermined expiration date on which trading of the futures contract ceases, the respective futures contract is (if provided for in the applicable Final Terms) replaced at a certain point in time determined in the Conditions by a futures contract, which except for an expiration date that is more distant in the future has the same contract specifications as the originally underlying Futures Contract ("**Rollover**"). If, according to the reasonable discretion of the Calculation Agent, no Futures Contract should exist at that time with the underlying conditions or contract characteristics corresponding to those of the Underlying to be replaced, the Issuer has the right to terminate the Securities or to replace the Futures Contract. If necessary, the new Futures Contract is multiplied by an adjustment factor in order to ensure the continuity of the development of the reference values underlying the Securities.

The Rollover is carried out on a trading day (the "Rollover Date") within a timeframe specified in the Conditions shortly before the expiration date of the current Futures Contracts. For this purpose, Goldman Sachs will close out its positions entered into through respective hedging transactions regarding the previous Futures Contracts, the expiration date of which is imminent, on the Rollover Date and build up corresponding positions in respect to a Futures Contract with identical features but a longer term. The New Futures Contract is selected in intervals specified in the Conditions. In the case of 3-month intervals, for example, the Futures Contract expiring in January (the "Old Futures Contract") is replaced with an identical Futures Contract (the "New Futures Contract"), which expires in the following April. If, according to the reasonable discretion of the Calculation Agent, insufficient liquidity in the trade in the Underlying should exist on a Rollover Date at the Reference Market, the Issuer has the right to postpone the Rollover Date to the next following Calculation Date. The "Rollover Price" is determined by the Issuer either based on an individual price of the Underlying or based on average values of the prices of the Underlying. Security Holders should also note in this context that while the Rollover is conducted on the secondary market, no continuous bid and offer prices can be quoted for the Securities. After completion of the Rollover, the Strike and, if applicable, other relevant thresholds are adjusted based on the Rollover Price for the New Futures Contract pursuant to the scheme described above. If applicable, the Multiplier is adjusted accordingly in order to preserve the economic price of the Securities, which is determined based on the Rollover Price calculated for the Old Futures Contract. In addition, a transaction fee, a so-called "Rollover Fee" is charged to cover the transaction costs caused by the Rollover, the amount of which is derived from a number per Futures Contract expressed in the Base Currency that is defined in the Conditions. Depending on the market situation, the adjustment of the Multiplier may have an advantageous or disadvantageous effect for Security Holders. In the case of a so-called "Contango" market, where the price of the next maturing Futures Contract into which the rolling occurs is higher than the price of the expiring Futures Contract, the proceeds from the closed out position are sufficient to acquire only a correspondingly smaller quantity of the New Futures Contract. This is correspondingly disadvantageous for a Security Holder of Long Securities. The opposite is the case in a so-called "Backwardation" market. The price of the expiring Futures Contract. This is correspondingly disadvantageous for a Security Holder of Short Securities.

Security Holders should furthermore note that an exercise of the Securities with effect on a Rollover Date occurs based on the Rollover Price determined for the Old Futures Contract.

### c) Risks in connection with dividend futures contracts

The amount of the total dividends distributed by the companies included in the index may be affected by numerous factors and the dividends may adversely affect the price of the dividend futures contract and, thus, the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

Dividend futures contracts reflect the sum of the dividends distributed by all companies represented in the underlying index, taking into account the index divisor in index points. A dividend futures contract reflects the stream of dividends in a calendar year, i.e. the relevant contract reflects only the dividends expected for the relevant calendar year.

When calculating the dividend futures contract, all ordinary gross dividends of the companies included in the underlying index are included; i.e. not all disbursements of the companies included in the index are included. Special dividends, capital repayments, or similar distributions are, however, not taken into account to the extent that the respective index sponsor makes an adjustment in the underlying index. If the index sponsor adjusts the index only in respect to part of the gross dividend, the part that is not adjusted is included in the final settlement price of the dividend futures contract.

The amount of the total dividends distributed, which are paid by the companies included in the underlying index, may be affected by numerous factors, particularly by the profits and dividend policy of the relevant company included in the index, as well as by company decisions, which are due to regulatory or tax considerations. In particular, regulatory and tax aspects may have a significant adverse effects on the payment of dividends. It is possible in the case of individual companies that dividends may be reduced significantly or not paid at all. These factors may adversely affect the price of the dividend futures contract and, thus, the value of the Securities and the Settlement Amount and other payments or deliveries under the Securities.

Security Holders may not rely on the companies currently included in the Index remaining in the underlying index in the future. The composition of the companies included in the index may change during the term of the Securities.

The actual price of the dividend futures contract on the Final Valuation Date is largely unrelated to the amount of the dividends paid by the companies included in the underlying index during similar dividend periods in the past. Therefore, the future performance of the dividend futures contract cannot be predicted on the basis of the dividends paid by the companies included in the index in the past.

Furthermore, there is no assurance that changes in the value of the Underlying are also necessary reflected in the price of the Securities. Therefore, the price of the Securities may decrease, even if the value of the dividend futures contract increases. A difference may also be due to the fact that the default risk of the Issuer is also taken into account in the pricing of the Securities, which may lead to a lower price of the Securities during the term.

# 5. Risk factors which apply to all or several types of Underlyings and/or Basket Components

In this category, investors will find a description of those specific material risks that occur in connection with all or several types of Underlyings and/or Basket Components. The risks in this category are classified according to their materiality based on the assessment of the issuer. The most material risks are mentioned first.

# 5.1. Risks due to the dependency of the market value or return on the Securities on the performance of the Underlying or Basket Components.

Security Holders bear the risk of fluctuations in the value of the Underlying or Basket Components, which may have an adverse effect on the value of the Securities and the yield expected by the Security Holder.

As the amount of the Settlement Amount and, if applicable, the type of settlement, the interest rate and/or the time of the settlement of the Securities are based on the performance of an Underlying and/or certain Basket Components, Security Holders are exposed to the risk of fluctuations in the value of the Underlying and/or Basket Components, which may adversely affect the value of the Securities and the expected rate of return of the Security Holder. If the Underlying and/or Basket Components develop(s) disadvantageous for the Security Holder, this will not only result in substantial losses for the Security Holder upon exercise / settlement of the Securities. If the development of the Underlying and/or Basket Components is expected to have an adverse effect on the interest rate and/or settlement of the Securities, this will also have a negative effect on the market price of the Securities. The market price of the Securities may be lower than their Nominal and/or Calculation Amount and/or issue price during their term and, if the Securities are sold before their final maturity, the proceeds from the sale may be lower than the invested capital. Should a significant loss or even a total loss from the settlement of the Securities become apparent, the market price will fall accordingly and a correspondingly high loss will be

incurred on the sale. Even if the Security Holder retains the Securities until settlement by the Issuer, it is possible that the yield expectations of the Security Holder will not be met or that the yield of a capital market investment with a comparable term and market interest rate will not be achieved, since only at this point in time is the amount of all payments on the Securities and, if applicable, the type of settlement known.

The development of the respective Underlying and/or Basket Components depends on a number of influencing factors and cannot be predicted. The rate or price of the Underlying and/or Basket Components may be subject to unpredictable change over time and this degree of change is known as "volatility". The volatility of an Underlying and/or the Basket Components may be affected by national and international financial, political, military or economic events, including governmental actions, or by the activities of participants in the relevant markets. Any of these events or activities could adversely affect the value of the Securities. Volatility does not imply direction of the rate or price, although an Underlying and/or the Basket Components that is more volatile is likely to increase or decrease in value more often and/or to a greater extent than one that is less volatile. Price movements in the Underlying and/or the Basket Components and thus in the Securities may also be caused by the Issuer, the Guarantor or companies affiliated with them engaging in hedging transactions or other larger transactions in the Underlying and/or the Basket Components or in relation to the Underlying. Security Holders should also note in this context that particularly in disadvantageous circumstances (e.g. in the case of low liquidity of the Underlying and/or the Basket Component), such a transaction may have a significant effect on the price performance of the Underlying and/or the Basket Components and may thus cause the price to exceed or to fall below certain thresholds provided for in the Conditions.

Security Holders should not rely on the fact that in the event of an unfavourable performance of the Underlying and/or Basket Components for the Security Holder, the performance will recover in time before the settlement of the Securities. There is then the risk of **partial or total loss of the invested capital including transaction costs**. This risk is independent of the financial strength of the Issuer and the Guarantor.

5.2. Risk arising from decisions taken at the Issuer's or the Calculation Agent's reasonable discretion in the event of adjustments, market disruptions or extraordinary termination

Security Holders should note that there is a risk that certain events in connection with the Securities may cause the Issuer and/or the Calculation Agent to make decisions or determinations in its reasonable discretion with respect to the Securities which may have a negative effect on the value and yield of the Securities.

During the term of the Securities, unforeseeable events may occur with respect to the Securities, such as adjustment measures with respect to the Underlying or components thereof and/or Basket Components, market disruptions or the occurrence of extraordinary termination events, which may require the Issuer and/or the Calculation Agent to make certain decisions or determinations under the Conditions. The decisions or determinations will be made by the Issuer and/or Calculation Agent at its reasonable discretion, taking into account current market conditions as the

case may be. Any such exercise of discretion by the Issuer and/or Calculation Agent may have a negative impact on the value and yield of the Securities.

The occurrence or existence of market disruptions will be determined in accordance with the Conditions of the Securities. In such a case, certain reference dates (e.g. the Final Valuation Date) may be postponed in accordance with the relevant Final Terms and the yield on the Securities may be adversely affected. Market disruptions may affect the price of the Securities and delay their settlement. If a reference date is postponed until the last possible day and the market disruption continues on such day or the Underlying and/or Basket Component is not determined on such day, the Issuer and/or Calculation Agent will nevertheless determine at its reasonable discretion the value of such Underlying and/or Basket Component on such last possible day. Any of these provisions may adversely affect the value and the yield of the Securities.

Adjustment measures (e.g. discontinuation of the quotation of the Underlying and/or Basket Component or a change in the way the Underlying and/or Basket Component is calculated) will be made in accordance with the Conditions of the Securities. In the event of adjustment measures relating to the Underlying and/or the relevant Basket Component, it cannot be ruled out that the estimates underlying an adjustment measure may subsequently prove to be incorrect and that the adjustment measure may later prove to be unfavourable to the Security Holder and that the adjustment measure will place the Security Holder in a worse economic position than he was prior to an adjustment measure or would be through another adjustment measure.

Security Holders should also note that, under the Conditions of the Securities, the Issuer may be entitled to call the Securities on an extraordinary basis if the Issuer and/or Calculation determines that it is not possible to adjust the Conditions of the Securities. In the event of extraordinary termination, the Issuer and/or Calculation Agent is entitled to determine at its reasonable discretion the relevant market price to be paid to Security Holders in the event of extraordinary termination.

In the case of an extraordinary termination there is no entitlement to payment of any amount calculated on the basis of a redemption formula set out in the Conditions of the Securities for the scheduled end of the term, nor is there any fixed unconditional minimum redemption amount. When determining the adequate market price in the case of an extraordinary termination, the Calculation Agent may take various market factors into account. These generally also include the probability of default by the Issuer or the Guarantor, calculated by using the credit spreads or the yields of sufficiently liquid traded bonds quoted on the market at the time of determination of the Termination Amount. In the case of Securities with a fixed term linked to Shares as Underlying, it should be noted that in the case of a termination as a consequence of a takeover bid, the price of the Underlying after announcement of the takeover bid may be used as a basis for purposes of determining the Termination Amount in accordance with the procedure customary at futures exchanges for determining the theoretical fair value, if the consideration is paid exclusively or mainly in cash, while particularly the expected dividends and the average implied volatility in the previous ten trading days prior to the announcement of the takeover bid are also taken into account (so-called Fair Value Method). The Fair Value Method serves to take the remaining time value of the underlying option into account. The market price determined by the Issuer and/or Calculation Agent may be significantly lower than the Nominal and/or Calculation Amount or any minimum redemption amount or purchase price paid (including transaction costs) and in the worst case zero (0). With regard to the risks associated with extraordinary termination, see also under "II.6.1. Risks related to an extraordinary termination of the Securities".

### 5.3. Risk in connection with the regulation and reform of benchmarks

Due to the regulation and reform of benchmarks, there may be an adjustment or extraordinary termination of the Securities and this may have an adverse effect on the redemption of the Securities for Security Holders.

The Underlying to which the Securities relate may be so-called benchmarks within the meaning of Regulation (EU) 2016/1011 of the European Parliament and of the Council on indices used as benchmarks in certain financial instruments and financial contracts, as amended (EU Regulation on indices used as benchmarks in certain financial instruments and financial contracts, "EU Benchmark Regulation").

The EU Benchmark Regulation and the EU Benchmark Regulation as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 (as amended) and regulations made thereunder (the "UK Benchmark Regulation", and together with the EU Benchmark Regulation, the "Benchmark Regulations") are a key element of the ongoing regulatory reform in, respectively, the EU and the UK and have applied since 1 January 2018. In addition to "critical benchmarks" such as LIBOR and EURIBOR, other interest rates, foreign exchange rates, and indices, including equity, commodity and "proprietary" indices or strategies, will in most cases be within scope of both versions of the Benchmark Regulations as "benchmarks" where they are used to determine the amount payable under, or the value of, certain financial instruments (including (i) in the case of the EU Benchmark Regulation, Securities listed on an EU regulated market or EU multilateral trading facility ("MTF") and (ii) in the case of the UK Benchmark Regulation, Securities listed on a UK recognised investment exchange or a UK MTF), and in a number of other circumstances.

The EU Benchmark Regulation applies to the contribution of input data to a benchmark, the administration of a benchmark, and the use of a benchmark in the EU. Amongst other things, the EU Benchmark Regulation requires EU benchmark administrators to be authorised or registered as such and to comply with extensive requirements relating to benchmark administration. It also prohibits, subject to transitional provisions, certain uses by EU supervised entities of (a) benchmarks provided by EU administrators which are not authorised or registered in accordance with the EU Benchmark Regulation and (b) benchmarks provided by non-EU administrators where (i) the administrator's regulatory regime has not been determined to be "equivalent" to that of the EU, (ii) the administrator has not been recognised in accordance with the EU Benchmark Regulation, and (iii) the benchmark has not been endorsed in accordance with the EU Benchmark Regulation.

The UK Benchmark Regulation contains substantially the same provisions as the EU Benchmark Regulation, despite its narrower geographical scope of application. The UK Benchmark Regulation applies to the contribution of input data to a benchmark, the administration of a

benchmark, and the use of a benchmark in the United Kingdom. The onus of compliance with the UK Benchmark Regulation rests on UK benchmark administrators and UK supervised entities.

The European Securities and Markets Authority ("ESMA") maintains a public register of EU-approved benchmark administrators and non-EU benchmarks pursuant to the EU Benchmark Regulation (the "ESMA Register"). Benchmarks and benchmark administrators which were approved by the UK Financial Conduct Authority ("FCA") prior to 31 December 2020 were removed from the ESMA Register on 1 January 2021. Since 1 January 2021, the FCA has maintained a separate public register of FCA-approved benchmark administrators and non-UK benchmarks pursuant to the UK Benchmark Regulation (the "UK Register"). The UK Register inleudes benchmark administrators and benchmarks which were approved by the FCA prior to 31 December 2020.

The EU Benchmark Regulation and/or the UK Benchmark Regulation could have a significant adverse impact on the value of and return on Securities linked to a benchmark. For example:

- a benchmark could be prohibited from being used in the EU if (subject to applicable transitional provisions) (a) its administrator is based in the EU and is not authorised or registered in accordance with the Benchmark Regulation, or (b) its administrator is based outside the EU and (i) the administrator's regulatory regime has not been determined to be "equivalent" to that of the EU, (ii) the administrator has not been recognised in accordance with the EU Benchmark Regulation, and (iii) the benchmark has not been endorsed in accordance with the EU Benchmark Regulation. In such case, depending on the particular benchmark and the applicable terms of the Securities, the Securities could be de-listed, adjusted, redeemed prior to maturity or otherwise impacted;
- similarly, a benchmark could be prohibited from being used in the UK if (subject to applicable transitional provisions) (a) its administrator is based in the UK and is not authorised or registered in accordance with the Benchmark Regulation, or (b) its administrator is based outside the UK and (i) the administrator's regulatory regime has not been determined to be "equivalent" to that of the UK, (ii) the administrator has not been recognised in accordance with the UK Benchmark Regulation, and (iii) the benchmark has not been endorsed in accordance with the UK Benchmark Regulation. In such case, depending on the particular benchmark and the applicable terms of the Securities, the Securities could be de-listed, adjusted, redeemed prior to maturity or otherwise impacted;
- if the Underlying and or reference rate is a benchmark and it would be unlawful or contradictory to any applicable licensing requirements for the Calculation Agent to determine the level or other value of such reference asset or make any other determination in respect of the Securities which it would otherwise be obliged to do so pursuant to the Conditions, then the Securities may be redeemed prior to maturity; and
- the methodology or other terms of the benchmark could be changed in order to comply with the terms of the EU Benchmark Regulation. Such changes could reduce or increase the respective level of the benchmark or affect the volatility of the published level.

Ongoing national and international regulatory reforms and the increased regulatory scrutiny of benchmarks generally could increase the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any applicable regulations or requirements. Such factors may discourage market participants from continuing to administer or contribute to benchmarks, trigger changes in the rules or methodologies used in respect of benchmarks, and/or lead to the disappearance of benchmarks. This could result in (i) the substitution of replacement rates for such benchmark(s), (ii) adjustments to the terms of the relevant Securities, (iii) early redemption of the relevant Securities, (iv) discretionary valuation. of the rate by the Calculation Agent, (v) delisting of the relevant Securities and/or (vi) other consequences for Securities linked to any such benchmark(s). Any such action following the discontinuance of a reference rate could have a material adverse effect on the value of, and return on, the Securities.

# 5.4. UK Regulators will no longer persuade or compel banks to submit rates for calculation of IBORs the interest rate benchmark could be discontinued

On 5 March 2021, ICE Benchmark Administration Limited, LIBOR's administrator, announced its intention to cease publication of all LIBOR rates on 31 December 2021, with the exception of certain USD LIBOR rates (as described below), which will continue to be published until 30 June 2023.

On the same day, the FCA announced that:

- (i) the overnight and twelve-month USD LIBOR will cease to be provided immediately after 30 June 2023; and
- (ii) the one-month, three-month and six-month USD LIBOR (the "USD LIBOR (June 2023) Non-Representative Rates", and each a "USD LIBOR (June 2023) Non-Representative Rate") will cease to be representative of their underlying market from 30 June 2023, and representativeness will not be restored.

The FCA also announced that the following would cease to be representative of their underlying market immediately after 31 December 2021, and representativeness would not be restored:

- (i) one-month, three-month and six-month sterling LIBOR (the "Sterling LIBOR Non-Representative Rates", and each a "Sterling Non-Representative Rate"); and
- (ii) one-month, three-month and six-month Japanese yen LIBOR (the "Japanese yen LIBOR Non-Representative Rates").

The FCA subsequently exercised powers conferred on it under the UK Benchmark Regulation to compel the continued publication of the Sterling LIBOR Non-Representative Rates and the Japanese yen LIBOR Non-Representative Rates for a period of time after 31 December 2021 on the basis of a "synthetic" methodology, comprising the applicable forward-looking term rate plus a fixed spread ("**Synthetic LIBOR**").

The FCA has confirmed that:

- (i) all of the Japanese yen LIBOR Non-Representative Rates will continue in the form of Synthetic LIBOR until the end of 2022, after which they will be discontinued;
- (ii) the one-month and six-month tenors of the Sterling LIBOR Non-Representative Rates will continue in the form of Synthetic LIBOR until 31 March 2023, after which they will be discontinued; and
- (iii) the three-month Sterling LIBOR Non-Representative Rate will continue in the form of Synthetic LIBOR until 31 March 2024, after which it will be discontinued.

Pursuant to the UK Benchmark Regulation and the Critical Benchmarks (References and Administrators' Liability) Act 2021, use of sterling Synthetic LIBOR and Japanese yen Synthetic LIBOR is permitted in all in-scope legacy contracts (other than cleared derivatives) that had not transitioned to an alternative rate by 31 December 2021, until 31 December 2022. Restrictions on supervised entities' use of such rates may be imposed thereafter. Synthetic LIBOR rates may not be referenced in new financial instruments.

In November 2022, the FCA launched a consultation in which it proposed that the USD LIBOR Non-Representative Rates (June 2023) continue to be published on a Synthetic LIBOR basis until the end of September 2024. The consultation closed on 6 January 2023 and the FCA plans to announce its decision in the first half of 2023.

Accordingly, except in very limited circumstances, LIBOR rates may no longer be referenced in new financial instruments. Furthermore, Holders should anticipate that the continuing USD LIBOR rates will either be discontinued or cease to be representative immediately after 30 June 2023.

Regulatory authorities and central banks are strongly encouraging the transition away from interbank offered rates, or "**IBORs**", and have identified risk-free rates to replace IBORs as primary benchmarks. This includes (amongst others):

- (i) for sterling LIBOR, the Sterling Overnight Index Average ("**SONIA**"), which is now established as the primary sterling interest rate benchmark;
- (ii) for USD LIBOR, the Secured Overnight Financing Rate ("SOFR"), to be established as the primary US dollar interest rate benchmark; and
- (iii) for EONIA and EURIBOR, the Euro Short-Term Rate ("€STR") as the new euro risk-free rate.

The reform and replacement of IBORs with risk-free rates may cause the relevant IBOR to perform differently than in the past, to disappear entirely, or have other consequences that cannot be predicted. These risk-free rates have a different methodology and other important differences from the IBORs that they are to replace. Any of these developments could have a material adverse effect on the value of and return on Securities linked to any such rates.

In summary, as at the date of this Base Prospectus with regard to the transition from IBORs to risk-free rates:

- GBP LIBOR: GBP LIBOR is now only available in one-month, three-month and six-month tenors, on the basis of a Synthetic LIBOR methodology, and may only be used in legacy contracts. The Working Group on Sterling Risk-Free Rates, as mandated by the Bank of England and the FCA, has driven a broad-based transition to SONIA across sterling bond, loan and derivative markets, so that SONIA is now established as the primary sterling interest rate benchmark.
- <u>USD LIBOR</u>: As described above, certain USD LIBOR tenors are still being published but their use in new financial contracts is widely restricted. On 22 June 2017, the Alternative Reference Rates Committee (the "ARRC"), convened by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York (the "FRBNY"), identified SOFR, a broad US treasuries repurchase financing rate published by the FRBNY, as the rate that represents best practice for use in new US dollar derivatives and other financial contracts. SOFR is a broad measure of the cost of borrowing cash overnight collateralised by US treasury securities.
- <u>EURIBOR</u>: EURIBOR has been reformed such that it is based on a hybrid methodology. On 13 September 2018, the Working Group on Euro Risk-Free Rates recommended €STR as the new euro risk-free rate, and the European Central Bank began publishing €STR on 2 October 2019. In addition, in May 2021, the Working Group published a set of guiding principles for fallback provisions in new EURIBOR-referencing contracts and financial instruments (including bonds) to address, among other things, the potential future discontinuation of EURIBOR.
- Other IBORs: Similar initiatives are underway in respect of IBORs in various other currencies, including Japanese yen (TIBOR), Hong Kong dollar (HIBOR), Australian dollar (BBSW) Canadian dollar (CDOR), and Swiss franc (CHF LIBOR), which was discontinued at the end of 2021, to transition to identified alternative risk-free rates.

Investors should note that under the Conditions interest rates in particular serve as financing rate for the purpose of the adjustment of the Strike for Mini Future Warrants, Open End Turbo Warrants or Factor Warrants. To the extent that any IBORs may be used as such financing rate, investors should understand (i) what fallbacks might apply in place of such rate (if any), (ii) when those fallbacks will be triggered and (iii) what unilateral determination rights (if any) on the part of the relevant Issuer or Calculation Agent (as applicable) apply under the Conditions of such Securities, as the effect of any of these could have a material adverse effect on the value of and return on Securities.

In connection with the USD LIBOR the following should be noted: If the Calculation Agent determines that a benchmark transition event and its related benchmark replacement date have occurred with respect to USD LIBOR, then a benchmark replacement will be selected by the Calculation Agent in accordance with the provisions of Section 3(9) of the General Conditions of the Base Prospectus dated 8 July 2020 and/or Section 3(10) of the General Conditions of the Base Prospectus dated 10 February 2021 and/or Section 3(10) of the General Conditions of the

Base Prospectus dated 9 February 2022. The selection of a benchmark replacement, and any decisions, determinations or elections made by the Calculation Agent or by the Issuer in connection with implementing a benchmark replacement with respect to the Securities in accordance with the provisions of Section 3(9) of the General Conditions of the Base Prospectus dated 8 July 2020 and/or Section 3(10) of the General Conditions of the Base Prospectus dated 10 February 2021 and/or Section 3(10) of the General Conditions of the Base Prospectus dated 9 February 2022, could result in adverse consequences to the relevant Reference Rate on the Securities during the applicable period or time, as the case may be, which could adversely affect the return on, value of and market for the Securities. Further, there is no assurance that the characteristics of any benchmark replacement will be similar to USD LIBOR, or that any benchmark replacement will produce the economic equivalent of USD LIBOR.

# 5.5. Risks relating to differences in methodologies between IBORs and 'risk-free rates'

The 'risk-free rates' have different calculation methodologies and other important differences from the IBORs they will eventually replace. Market terms for Securities linked to such 'risk-free rates' may evolve over time, and trading prices of such Securities may be lower than those of later-issued Securities as a result. Furthermore, if the relevant 'risk-free rate' (such as, for example, SONIA or SOFR) fails to gain market acceptance or does not prove to be widely used in the capital markets, the trading price of Securities linked to 'risk-free rates' may be lower than those of Securities linked to rates that are more widely used and as a result, Security Holders may not be able to sell their Securities at all or may not be able to sell their Securities at prices that will provide Holders with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

To the extent that any Securities reference an IBOR, Holders should understand (i) what fallbacks might apply in place of such rate (if any), (ii) when those fallbacks will be triggered and (iii) what unilateral amending rights (if any) on the part of the Issuer or Calculation Agent (as applicable) apply under the terms and conditions of such Securities, as the effect of any of these could have a material adverse effect on the value of and return on Securities.

# 5.6. Risks relating to the developing markets for SONIA, SOFR, €STR and TONA and potential impact on performance and returns

The market continues to develop in relation to the adoption of SONIA, SOFR, €STR and the Toyko Overnight Average Rate ("TONA") as reference rates in the capital markets for sterling, U.S. dollar or euro bonds, respectively, and their adoption as alternatives to the relevant interbank offered rates. The market or a significant part thereof may adopt an application of 'risk-free rates' that differs significantly from that set out in the Conditions and used in relation to Securities that reference such 'risk-free rates' issued hereunder. For example, market participants and relevant working groups are exploring alternative reference rates based on 'risk-free rates', including term SONIA, SOFR, €STR and TONA reference rates (which seek to measure the

market's forward expectation of an average SONIA rate, SOFR, €STR or TONA over a designated term), and it is possible that market participants may seek to apply such compounded rate or term rates for capital markets issuances.

The development of new 'risk-free rates' could result in reduced liquidity or increased volatility, or could otherwise affect the market price of any Securities that reference a 'risk-free rate' issued hereunder from time to time.

The new 'risk-free rates' may have no established trading market, and an established trading market may never develop or may not be very liquid. Market terms for Securities indexed to the new 'risk-free rates' may evolve over time, and may lead to impacts on trading prices and values, and such Securities may not be able to be sold or may not be able to be sold at prices that will provide a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

### 5.7. Certain risks related to the Secured Overnight Financing Rate

In June 2017, the ARRC announced the SOFR as its recommended alternative to US Dollar LIBOR. However, because the SOFR is a broad U.S. Treasury repo financing rate that represents overnight secured funding transactions, it differs fundamentally from the LIBOR. For example, the SOFR is a secured overnight rate, while USD LIBOR is an unsecured rate that represents interbank funding over different maturities. In addition, because SOFR is a transaction-based rate, it is backward-looking, whereas USD LIBOR is forward-looking. Because of these and other differences, there can be no assurance that the SOFR will perform in the same way as US Dollar LIBOR would have done at any time, and there is no guarantee that it is a comparable substitute for USD LIBOR.

Under the provisions of Section 3(9) of the General Conditions of the Base Prospectus dated 8 July 2020 and/or Section 3(10) of the General Conditions of the Base Prospectus dated 10 February 2021 and/or Section 3(10) of the General Conditions of the Base Prospectus dated 9 February 2022, if a benchmark transition event and its related benchmark replacement date occur with respect to USD LIBOR, and if the Calculation Agent cannot determine the relevant USD LIBOR rate by means of interpolating from other tenors of USD LIBOR, then the Reference Rate in relation to certain Securities during the applicable period or time will be determined based on the SOFR (unless a benchmark transition event and its related benchmark replacement date also occur with respect to the Benchmark Replacements that are linked to SOFR, in which case the Reference Rate will be based on the next-available benchmark replacement). In the following discussion of SOFR, references to SOFR-linked Securities shall mean the Securities at any time when the Reference Rate in relation to Securities is or will be determined based on SOFR.

Because SOFR is published by Federal Reserve Bank of New York ("FRBNY") based on data received from other sources, the Issuer has no control over its determination, calculation or publication. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the SOFR-linked Securities.

If the manner in which SOFR is calculated is changed, that change may result in a reduction of the payments on the SOFR-linked Securities, which may adversely affect the market prices of the SOFR-linked Securities. If the rate at which interest or coupon accrues on the Securities during the applicable period on any day declines to zero or becomes negative, no interest or coupon will be payable on the Securities with respect to that day or applicable period, as the case may be.

SOFR was developed for use in certain U.S. dollar derivatives and other financial contracts as an alternative to USD LIBOR in part because it is considered to be a good representation of general funding conditions in the overnight U.S. Treasury repo market. However, as a rate based on transactions secured by U.S. Treasury securities, it does not measure bank-specific credit risk and, as a result, is less likely to correlate with the unsecured short-term funding costs of banks. This may mean that market participants would not consider SOFR to be a suitable substitute or successor for all of the purposes for which U.S. dollar LIBOR historically has been used (including, without limitation, as a representation of the unsecured short-term funding costs of banks), which may, in turn, lessen its market acceptance. Any failure of SOFR to gain market acceptance could adversely affect the return on, value of and market for SOFR-linked Securities.

FRBNY started publishing SOFR in April 2018. FRBNY has also started publishing historical indicative Secured Overnight Financing Rates dating back to 2014, although such historical indicative data inherently involves assumptions, estimates and approximations. Investors should not rely on such historical indicative data or on any historical changes or trends in SOFR as an indicator of the future performance of SOFR. Since the initial publication of SOFR, daily changes in the rate have, on occasion, been more volatile than daily changes in comparable benchmark or market rates, and SOFR over the term of the notes may bear little or no relation to the historical actual or historical indicative data. In addition, the return on and value of the SOFR-linked Securities may fluctuate more than floating rate debt securities that are linked to less volatile rates.

SOFR-linked Securities will likely have no established trading market when issued, and an established trading market for SOFR-linked Securities may never develop or may not be very liquid. Market terms for debt securities that are linked to SOFR, such as the spread over the base rate reflected in the interest rate provisions, may evolve over time, and as a result, trading prices of the SOFR-linked notes may be lower than those of later-issued debt securities that are linked to SOFR. Similarly, if SOFR does not prove to be widely used in debt securities that are similar or comparable to the SOFR-linked notes, the trading price of the SOFR-linked notes may be lower than those of debt securities that are linked to rates that are more widely used. Investors in the SOFR-linked notes may not be able to sell the SOFR-linked notes at all or may not be able to sell the SOFR-linked notes at prices that will provide them with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

The manner of adoption or application of reference rates based on SOFR in the bond markets may differ materially compared with the application and adoption of SOFR in other markets, such as the derivatives and loan markets. Investors should carefully consider how any potential

inconsistencies between the adoption of reference rates based on SOFR across these markets may impact any hedging or other financial arrangements which they may put in place in connection with any acquisition, holding or disposal of USD LIBOR or SOFR-linked Securities.

SOFR is published by the FRBNY and is intended to be a broad measure of the cost of borrowing cash overnight collateralised by Treasury securities. FRBNY reports that SOFR includes all trades in the Broad General Collateral Rate, plus bilateral Treasury repurchase agreement ("repo") transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the "FICC"), a subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). SOFR is filtered by FRBNY to remove a portion of the foregoing transactions considered to be "specials". According to FRBNY, "specials" are repos for specific-issue collateral which take place at cash-lending rates below those for general collateral repos because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

FRBNY reports that SOFR is calculated as a volume-weighted median of transaction-level triparty repo data collected from The Bank of New York Mellon, which currently acts as the clearing bank for the tri-party repo market, as well as General Collateral Finance Repo transaction data and data on bilateral Treasury repo transactions cleared through the FICC's delivery-versus-payment service. FRBNY notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC.

FRBNY currently publishes SOFR daily on its website at https://apps.newyorkfed.org/mar-kets/autorates/sofr. FRBNY states on its publication page for SOFR that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that FRBNY may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. Information contained in the publication page for SOFR is not incorporated by reference in, and should not be considered part of, the Base Prospectus.

### 5.8. Risks associated with investments in emerging markets

Compared to investments in developed countries, investments in so-called emerging markets are generally associated with additional risks which may have an adverse effect on the value of the Securities and the return expected by the Security Holder.

Investments in so-called emerging markets contain further risks in addition to the risks normally associated with the investment in the respective asset class. These include the unstable economic situation, high inflation, increased currency risks as well as political and legal risks. The political and economic structures in emerging markets are sometimes subject to considerable change and rapid developments and these countries often lack social, political and economic stability in comparison with more industrialised nations. Of particular importance is the increased risk of currency fluctuations. Instability in these countries can also be caused by authoritarian governments or military interference in political and economic decision making. This also includes anticonstitutional (attempted) regime change, civil unrest relating to demands for improved political,

economic and social conditions, hostile relations with neighbouring countries or conflicts based on ethnic, religious or racial grounds.

There is also the possibility of restrictions being imposed on foreign investors, expropriation of assets, confiscatory taxation, confiscation or nationalization of foreign bank deposits or other assets, the introduction of currency controls or other detrimental developments which may adversely affect the success of investments in such countries. Such adverse effects can, under certain circumstances, last for long periods of time, i.e. months or years. Each of these adverse effects may cause a market disruption in relation to the Securities, inter alia, with the results that during this period no prices will be quoted for the Securities affected by the market disruption.

The small size and lack of sophistication on the securities markets in certain countries as well as the limited trading volume of securities can cause an Underlying and/or the Basket Component to be less liquid and/or considerably more volatile than values in more established markets. It is possible that very little financial information is available on local issuers, which can make it difficult to assess the value of and/or prospects of the Underlying and/or Basket Component.

In addition, if the Underlying and/or the Basket Components of the Securities are quoted in local currency, i.e. are not hedged against the Settlement Currency, there is an increased foreign exchange risk. Experience shows that the foreign exchange rates in emerging markets are subject to particularly high fluctuations. This may result in a considerably adverse performance of the Security, even though the performance of the Underlying and/or the Basket Components during the term of the Security has essentially remained unchanged or has even developed to the advantage of the Security Holder. This may mean that some or all of the total performance of the Underlying and/or the Basket Components may be eroded by currency losses and that the performance of the Underlying and/or the Basket Components may even become negative for the Security Holder.

# 5.9. Risks specific to a Basket as Underlying

# The performance of a Basket may be adversely affected by a variety of different factors for the Security Holder.

Where the Securities reference a basket of assets as Basket Components, the Security Holders are exposed to the performance of such basket. The Security Holders will bear the risk that such performance cannot be predicted and is determined by macroeconomic factors relating to the components that comprise such basket (see "II.4. Risk factors in relation to the type of the Underlying and/or Basket Component").

Depending on the structure of the Security, a Basket Component or a type of Basket Component, the performance of which has developed very badly, may be decisive for determining the Settlement Amount or interest amounts. Security Holders must be aware that even in the case of a positive performance of one or more Basket Components, the performance of the basket as a whole may be negative if the negative performance of the other Basket Components outweighs such positive performance.

The following are some material factors, which are reflected in the performance of the Basket:

### Lesser number of Basket Components

The performance of a basket that includes a lesser number of Basket Components will be more affected by changes in the value of any particular Basket Component included therein (which adversely affect the value of the Security for the Security Holder) than a basket that includes a greater number of Basket Components.

### • Unequal weighting of Basket Components

The performance of a basket that gives greater weight to some Basket Components will be more affected by changes in the value of any such particular Basket Component included therein (which adversely affect the value of the Security for the Security Holder) than a basket that gives relatively equal weight to each Basket Component.

 High correlation of Basket Components could have a significant effect on amounts payable

The correlation of the Basket Component indicates the level of interdependence among the individual Basket Components with respect to their performance. Correlation has a value ranging from "-1" to "+1", whereby a correlation of "+1", i.e. a high positive correlation, means that the performance of the Basket Components always moves in the same direction. A correlation of "-1", i.e. a high negative correlation, means that the performance of the Basket Components is always diametrically opposed. A correlation of "0" indicates that it is not possible to make a statement on the relationship between the Basket Components. If, for example, all of the Basket Components originate from the same sector and the same country, a high positive correlation can generally be assumed. Correlation may fall however, for example when the company whose shares are included in the Basket are engaged in intense competition for market shares and the same markets. Where the Securities are subject to high correlation, any adverse move in the performance of the Basket Components will exaggerate the performance of the Securities (which adversely affect the value of the Security for the Security Holder).

### Change in composition of Basket

Where the Securities grant the Calculation Agent the right, in certain circumstances, to adjust the composition of the Basket after the Securities have been issued, the Security Holder may not assume that the composition of the Basket will remain constant during the term of the Securities. Security Holders should be aware that the replacement Basket Component may perform differently to the outgoing Basket Component, which may have an adverse effect on the performance of the Basket as well as the value of the Security for the Security Holder.

# 6. Risk factors arising from the Condition of the Securities

In this category, investors will find a description of those specific material risk factor arising from the Conditions of the Securities. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first

whereby whereby for the respective Securities only those risks are relevant that have the respective features mentioned.

### 6.1. Risks related to an extraordinary termination of the Securities

If the Conditions of the Securities provide for extraordinary termination by the Issuer, the Security Holder bears a risk of loss as the termination amount equals the market price of the Securities which can be even zero. The Security Holder also bears the reinvestment risk in relation to the termination amount.

Under certain circumstances (e.g. if an adjustment of the Conditions is not possible) the Issuer may have an extraordinary termination right. Furthermore, an extraordinary termination is possible in the cases provided for in the applicable Conditions, for example in the case of disruptions of trading in the Underlying or in financial instruments linked to the Underlying (including the futures and lending market) or if an Additional Disruption Event or a Change in Law Event exists. If the termination right is exercised, the Issuer will redeem the Securities at an adequate market price which can be even zero (further information about the determination of the market price can be found above under "II.5.2 Risk arising from decisions taken at the Issuer's or the Calculation Agent's reasonable discretion in the event of adjustments, market disruptions or extraordinary termination"). It should also be taken into account in the case of an extraordinary termination the Security Holder bears the reinvestment risk. This means that it may only be able to reinvest the amount to be paid by the Issuer in the case of a termination on less favourable market terms than those existing when the Security was acquired.

Security Holders should note that in the case of an exercise of the extraordinary termination right by the Issuer, they may no longer be able to sell the Securities on the secondary market or, if the Securities provide for an exercise right of the Security Holder, to exercise the Securities.

# 6.2. Risks related to an ordinary termination of the Securities

If the Conditions of the Securities provide for ordinary termination by the Issuer, the Security Holder bears a risk of loss as the termination amount may be below the market value of the Securities and the amount invested and can be even zero (total loss). The Security Holder also bears the reinvestment risk in relation to the termination amount.

The applicable Final Terms will indicate whether the Issuer may have a right to call the Securities prior to maturity at the option of the Issuer. If the Issuer redeems the Securities prior to maturity, a Security Holder is exposed to the risk that due to the termination and the associated early redemption its investment will have a lower than expected yield. The amount the Security Holder will receive in the case of an ordinary termination may be below the market value of the Securities and the amount invested. In the most unfavourable case, the amount the Security Holder will receive in the case of an ordinary termination may even be zero (0), resulting in not just a partial loss of the capital invested, but a total loss. It should also be taken into account in the case of an ordinary termination the Security Holder bears the reinvestment risk. This

means that it may only be able to reinvest the amount to be paid by the Issuer in the case of a termination on less favourable market terms than those existing when the Security was acquired.

Security Holders should note that the Issuer exercises its ordinary termination right in its reasonable discretion and is not subject to any commitments regarding the exercise of its termination right. The exercise of the termination right may occur on any day. The higher the volatility of the Underlying or the more illiquid the market in financial instruments linked to the Underlying (including the futures and lending market), the more likely it is that the Issuer will make use of its termination right. Security Holders should also note that the relevant termination notice time span that is applied in the case of an exercise of the ordinary termination right by the Issuer is specified in the applicable Final Terms and may only be one Business Day.

In the case that the Securities provide for an ordinary termination right of the Issuer, Security Holders should not rely on being able to hold a position in the Securities for a longer time.

# 6.3. Risks related to a Change in Law

Securities may be redeemed prior to maturity due to a Change in Law Event, and Security Holders may lose some or all of their investment. The Security Holder also bears the reinvestment risk in relation to the non-scheduled early repayment amount.

Where, due to a Change in Law Event, (i) the Issuer's performance under the Securities or the Issuer's performance or that of any of its affiliates under any related hedge positions (whether with respect to the underlying asset(s) or any constituent thereof) or (ii) the performance of any of the Issuer's affiliates under the Securities had such affiliate been an issuer of the Securities or under any related hedge positions (whether with respect to the underlying asset(s) or any constituent thereof) had such affiliate been a party to any such hedging and funding arrangement, as result of (a) the adoption of, or any change in, any relevant law, rule, regulation, judgment, order, sanction or directive of any governmental, administrative, legislative or judicial authority or power (including any tax law) or (b) the promulgation of, or any change in, the interpretation by any court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction of any applicable law or regulation (including any tax law) (each of (a) and (b), a "Change in Law Event") has or will become unlawful or impractical or there is a substantial likelihood of the same in the immediate future, the Issuer may, in its discretion, adjust the terms of the Securities or redeem the Securities.

If the Issuer elects to early redeem the Securities, if permitted by applicable law, the Issuer shall pay to the Security Holders an amount equal to the non-scheduled early repayment amount of such Securities. The non-scheduled early repayment amount will be an amount determined by the Calculation Agent as the fair market price of such Securities on the second Business Day prior to the date of such early redemption or settlement, determined by reference to such factors as the Calculation Agent considers to be appropriate, and (to the extent specified in the Conditions) adjusted to account fully for any reasonable expenses and costs of the Issuer and/or related hedging position of the Issuer (if any). The non-scheduled early repayment amount may

be less than initial investment of the Security Holder and Security Holders may therefore lose some or all of their investment.

Following any such early redemption of the Securities, Security Holders may not be able to reinvest the proceeds from such redemption at a comparable return and/or with a comparable interest rate for a similar level of risk. Security Holders should consider such reinvestment risk in light of other available investments when they purchase the Securities.

# 6.4. Risks related to the occurrence of a Hedging Disruption

Securities may be redeemed prior to maturity due to a Hedging Disruption, and Security Holders may lose some or all of their investment. The Security Holder also bears the reinvestment risk in relation to the termination amount.

If the Conditions of the Securities provide that Hedging Disruption is applicable, the Issuer may redeem the Securities in the event that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in reasonable discretion, to (a) hold, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

Either such action could have a material adverse effect on the value of and return on the Securities. Further, if the Issuer elects to redeem the Securities, Security Holders may not be able to reinvest the proceeds from such redemption at a comparable return and/or with a comparable interest rate for a similar level of risk. Security Holders should consider such reinvestment risk in light of other available investments when they purchase the Securities.

# 6.5. Risks in connection with the physical delivery

There is a risk for the Security Holders that the delivered Underlying or Basket Component or share of an Exchange Traded Fund may only have a very low value or may, in fact, be worthless. In this case, there is a risk of losses – up to the total loss of the invested capital as well as the related transaction costs.

Where the Securities provide that, subject to the fulfillment of particular conditions, the Securities shall be redeemed at their maturity by the delivery of the Underlying or Basket Component or, in the case of undeliverable Underlyings or Basket Component (e.g. indexes), by the delivery of shares of an Exchange Traded Fund, the Security Holders will receive such Underlying or Basket Component or share of an Exchange Traded Fund rather than a monetary amount upon maturity. The number of units of the Underlying or Basket Component or share of an Exchange Traded Fund to be delivered is determined by the Physical Delivery Unit. Security Holders should note that they bear the issuer and securities risks of the deliverable Underlying or Basket Component or share of an Exchange Traded Fund. Furthermore, it is to be noted that the Issuer

has the right to pay compensation in lieu of delivery of the Underlying or Basket Component or share of an Exchange Traded Fund, if for any reason whatsoever it is economically or practically difficult or impossible to deliver the Underlying or Basket Component or share of an Exchange Traded Fund or if, in the event of the occurrence of an ETF Reference Price Disruption, it is not possible to determine the Physical Delivery Unit. If the Underlying or Basket Component to be delivered is a registered share, Security Holders should also consider that the rights associated with the shares (e.g. participation in the general meeting, exercise of voting rights, etc.) can generally only be exercised by shareholders who are registered in the share register or a comparable official list of shareholders of the company. The obligation of the Issuer to deliver shares is limited to provision of the shares effected with the characteristics and in the form that allow delivery via an exchange and does not cover registration in the share register or list of shareholders. Any claims due to non-fulfilment, in particular rescission or damage claims, are excluded in such cases.

The Security Holders should not assume that he or she will be able to sell the deliverable Underlying or Basket Component or share of an Exchange Traded Fund for a specific price after the redemption of the Securities and in particular not for a price corresponding to the amount of capital used to purchase the Securities. In this context, Security Holders should note that the delivered Underlying or Basket Component or share of an Exchange Traded Fund may be sold at the earliest following registration in the securities account of the Security Holder. The Security Holder has no claim to the Underlying or Basket Component or share of an Exchange Traded Fund prior to the registration of the transfer of the same. The price of the Underlying or Basket Component or share of an Exchange Traded Fund may decline in the period between the Final Valuation Date and the date of registration in the Security Holder's securities account. The effective profit or loss is only determined once the Underlying or Basket Component or share of an Exchange Traded Fund has been delivered and then sold or once the proceeds from the Underlying or Basket Component or share of an Exchange Traded Fund have otherwise been realised.

# 6.6. Risks in connection with payments under the Securities made in a currency different from the currency of the Underlying and/or Basket Component

An adverse development of the Reference Currency and/or the relevant exchange rate may adversely affect the value of the Securities as well as the Settlement Amount and/or any other payments under the Securities.

Security Holders should note that where payments under the Securities will be made in one currency (the so-called "**Settlement Currency**") which is different from the currency of the Underlying and/or the Basket Components (the so-called "**Reference Currency**"), and such Securities do not have a "quanto feature" or in the case of an Underlying and/or Basket Component that themselves contain currency conversion (such as a global equity index that converts all stock prices to a single currency for purposes of calculation the index level), the Security Holders may be exposed not only to the performance of the Underlying and/or the Basket Components but

also to the performance of such Reference Currency and/or the relevant exchange rate, which cannot be predicted.

Security Holders should be aware that foreign exchange rates are, and have been, highly volatile and determined by supply and demand for currencies in the international foreign exchange markets, which are subject to economic factors, including inflation rates in the countries concerned, interest rate differences between the respective countries, economic forecasts, international political factors, currency convertibility and safety of making financial investments in the currency concerned, speculation and measures taken by governments and central banks. Foreign exchange fluctuations between a Security Holder's home currency and the Settlement Currency, i.e. the relevant currency in which the Settlement Amount of the Securities is denominated, may affect Security Holders who intend to convert gains or losses from the exercise or sale of Securities into their home currency.

If any Underlying and/or the Basket Components is not denominated in the Settlement Currency and at the same time only the performance of the Underlying in the Reference Currency is relevant to the payout on the Securities, such Securities are referred to as currency-protected Securities or Securities with a "quanto" feature. Under such feature, the investment return of the Securities depends only on the performance of the Underlying and/or the Basket Components (in the relevant Reference Currency) and any movement in the exchange rate between the Reference Currency and the Settlement Currency is disregarded. Accordingly, the application of a "quanto" feature means that Security Holders will not have the benefit of any movements in the exchange rate between the Reference Currency and the Settlement Currency that would otherwise increase the price of the Securities or the Settlement Amount to be paid at maturity in the absence of such "quanto" feature.

In addition, movements in the relevant exchange rate may indirectly influence the price of the relevant Underlying and/or the Basket Components which, in turn, could have a negative effect on the return on the Securities.

# 6.7. Risks related to a termination of the Securities in the course of corrections, supplement or modifications of the Conditions

In the course of corrections, supplement or modifications of provisions in the conditions of the Securities the Issuer and the Security Holder might have a right to terminate the Securities. In the case of an exercise of such termination right the Security Holder bears the reinvestment risk in relation to the termination amount.

Security Holders should note that the Issuer has the right in certain cases specified in more detail in the Conditions to correct, supplement or modify provisions in the Issue Specific Terms and/or the Conditions, and the correction, supplement or modification of a provision in the Conditions may, if applicable, be detrimental for the Security Holder compared to the original provision, i.e. that information or provisions may be affected by the correction, change, or amendment, which are part of the factors determining the price of the Securities.

If due to the correction, supplement or modification of the provision the content or scope of the Issuer's performance obligations is changed in an unforeseeable and detrimental manner that is

not foreseeable to the Security Holder, the Security Holder has the right to terminate the Securities within a period specified in more detail in the Conditions. The Security Holder does not have a termination right, if the correction, supplement or modification was foreseeable or is not disadvantageous for it.

If a correction, supplement or modification is not possible, the Issuer has in the case of German Securities the right to terminate the Securities without undue delay, if the preconditions for rescission in the sense of Sections 119 et seq. of the German Civil Code (BGB) exist vis-à-vis the Security Holders. Individual Security Holders are also entitled to terminate the Securities under these conditions. The Termination Amount to be paid in the case of a termination generally corresponds to the market price of a Security and the Conditions contain detailed rules for its determination. In order to reduce the effects of any price fluctuations immediately prior to the Termination Date on the determination of the Termination Amount, the market price generally corresponds to the arithmetic mean of the spot prices (Kassakurse) which were published at the Securities Exchange specified in the applicable Final Terms, provided that the Securities are listed. Calculating the average is disadvantageous for the Security Holder, if the spot price on the Business Day prior to the Termination Date is higher than the arithmetic mean. The Security Holder may furthermore demand from the Issuer, subject to the conditions specified in the Conditions, the difference between the purchase price paid by the Security Holder when acquiring the Securities and a lower market price, to the extent that the Security Holder produces evidence thereof to the Principal Programme Agent. The reimbursement of transaction costs or of other fees, including any offering premium paid, may only be considered, however, in connection with a potential claim by the Security Holder for compensation of the negative interest (corresponding to Section 122 BGB).

In the case of a termination of the Securities by the Issuer or the Security Holder the Security Holder bears the reinvestment risk. This means that it may only be able to reinvest the amount to be paid by the Issuer in the case of a termination on less favourable market terms than those existing when the Security was acquired.

#### 7. Risk factors associated with the investment in the Securities

In this category, investors will find a description of those specific material risks that occur in connection with the investment in the Securities. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

# 7.1. Risk in the case of a settlement of the Securities in a different currency than the currency of the account of the Security Holder

Security Holders bear an additional exchange rate risk if the account of the Security Holder is held in a currency different from the Settlement Currency of the Security.

A currency risk exists if the account of the Security Holder to which the Settlement Amount or any other amount owed is paid is managed in a currency different from the Settlement Currency of the Security as in this case the relevant Settlement Amount or any other amount owed is being converted into the currency of the account of the Security Holder. If the exchange rate used for the conversion is unfavourable, the amount transferred is reduced accordingly.

### 7.2. Risk related to the liquidity of the Securities

# Security Holders bear the risk that the Securities can not be sold at a specific time or at a specific price during their term.

Unless the rules of any stock exchange on which the Securities are listed and admitted to trading require the Issuer or any Goldman Sachs affiliate to provide liquidity in respect of such Securities, the Securities may have no liquidity or the market for such Securities may be limited and this may adversely impact their value or the ability of the Security Holder to dispose of them. Therefore, Security Holders may not be able to sell their Securities or, if they can, they may only be able to sell them at a price which is substantially less than the original purchase price.

The issue size set out in the applicable Final Terms corresponds to the maximum amount of the offered Securities, but does not give any indication as to the volume of the respective effectively issued Securities deposited with a central depositary. This volume is determined by the market situation and may change during the term of the Securities. Security Holders should therefore note that no conclusions regarding the liquidity of the Securities on the secondary market are possible based on the issue size set out in the applicable Final Terms.

A secondary market is unlikely to develop and, even if a secondary market does develop, it is not possible to predict the price at which Securities will trade in such secondary market. Neither the Issuer nor any Goldman Sachs affiliate does commit or is under any obligation legal or otherwise to quote bid and ask prices for the Securities. If the Issuer or any Goldman Sachs affiliate does quote bid and ask prices for the Securities under normal market conditions, it assumes no obligation towards (potential) Security Holders to provide bid and ask prices for the Securities on an ongoing basis or to maintain this activity for the entire term of the Securities. Goldman Sachs reserves the right, at any time and without prior notice, to discontinue or resume the quotation of bid and ask prices, either temporarily or permanently, in its sole discretion. The reason may be, including but not limited to, (i) special market circumstances, such as highly volatile markets, disruptions in trading or in the price determination of the underlying, regulatory restrictions, a Barrier Event or Stop-Loss Event or Knock-Out Event (if relevant) indicatively having happened, irregular market conditions or similar events, as well as (ii) special circumstances such as technical disruptions, information transmission problems between market participants or force majeure. Security Holders should therefore not assume that the Securities can be sold at a specific time or at a specific price during their term.

Neither the Issuer nor any Goldman Sachs affiliate has any obligation to provide any quotation of bid or offer price(s) for the Securities which is favourable to any Security Holder. Although application may be made for the Securities issued under the Base Prospectus to be admitted to trading on a stock exchange, there can be no assurance that such application will be accepted, that any particular Securities will be so admitted or that an active trading market will develop. In case of a listing or admission to trading of the Securities there is no obligation of the Issuer or

of any Goldman Sachs affiliate to maintain a listing or admission to trading of the Securities during the term of the Securities. Accordingly, there can be no assurance as to the development or liquidity in any trading market for any particular Securities. Neither the Issuer assumes any responsibility for, nor makes any commitment to, any (potential) Security Holder for such development or liquidity of any trading market in such Securities.

# 7.3. Risk related to the pricing of the Securities

Security Holders bear the risk that the market price of the Securities may fluctuate significantly during the term of the Securities. The Security Holder may be dependent on the fact that Goldman Sachs as a market maker will quote bid and ask prices for the Securities.

The pricing of the Securities is determined by several factors during their term. In addition to the term of the Securities and the level of interest paid, if any, which may depend on the performance of the Underlying and/or the Basket Components, in particular the solvency of the Issuer and the Guarantor is relevant.

The Securities may be traded over the counter and, if stipulated in the applicable Final Terms, on a stock exchange throughout their term. If the Securities are listed on a stock exchange, the fact that such Securities are listed will not necessarily lead to greater liquidity which may adversely impact the value of the Securities or the ability of the Security Holder to dispose of them. If Securities are not listed or traded on any exchange, pricing information for such Securities may be more difficult to obtain and they may be more difficult to sell. In contrast to most other securities, the pricing of the Securities is not based on the principle of supply and demand, since the intention is for Goldman Sachs as market maker to quote bid and ask prices for the Securities on a regular basis under normal market conditions. However Goldman Sachs does not commit and is under no obligation legal or otherwise to quote bid and ask prices for the Securities. If Goldman Sachs does make a market for the Securities, investors should note that delays may occur during the price determination and the prices of the Securities may differ significantly from current tradable prices for the Securities.

The price calculation by the market maker will be based on internal price calculation models, so that the theoretical value of the Securities will be determined on the basis of the value of the Underlying and other variable parameters. During the term of the Securities, the market price of the Securities may also deviate from the development of the price of the Underlying or of Basket Components, since other factors, for example the correlations, volatilities and interest rate level, may influence the pricing and/or development of the price of the Securities.

These other variable parameters may include, among other things, derivative components, expected yields on the Underlying (e.g. dividends), interest rates, the volatility of the Underlying and the supply and demand for hedging instruments and the interest rate premium above the risk-free rate on notes issued by the Guarantor (*Credit Spread*) (on price setting, see also under "II.9.1. Conflicts of interest in connection with the determination of purchase prices" together with "II.9.2. Conflicts of interest in connection with commission payments"). Security Holders should note that the Credit Spread may also change if the solvency of the Guarantor remains unchanged.

As other market makers may not participate significantly in the secondary market for the Securities, the price at which Security Holders may be able to trade their Securities is likely to depend on the price, if any, at which Goldman Sachs is willing to buy the Securities. Therefore, Security Holders may not be able to sell their Securities or, if they can, they may only be able to sell them at a price which is substantially less than the original purchase price.

Securities are also subject to selling restrictions and purchaser representations and requirements and transfer restrictions that may limit the ability of investors to resell or transfer them. For these reasons, investors should not assume that a secondary market will exist for the Securities, and they should be prepared to hold their Securities until their scheduled maturity. The availability of any secondary market may be limited or non-existent and, if investors are able to sell their Securities, they may receive significantly less than they would otherwise receive by holding the Securities to their scheduled maturity.

Goldman Sachs may stop showing tradeable prices on just the offer side for a number of different reasons, including but not limited to: international sanctions regimes, inability to hedge, being sold out of an instrument, a product delta would trigger Section 871(m) of the U.S. Internal Revenue Code tax burden on the investor or the Issuer or market maker.

Goldman Sachs may stop quoting products without prior notice for a number of reasons including, but not limited to, (i) special market circumstances, such as highly volatile markets, disruptions in trading or in the price determination of the underlying, regulatory restrictions, a Barrier Event or Stop-Loss Event or Knock-Out Event (if relevant) indicatively having happened, irregular market conditions or similar events, as well as (ii) special circumstances such as technical disruptions, information transmission problems between market participants or force majeure. Security Holders should therefore not assume that the Securities can be sold at a specific time or at a specific price during their term.

# 7.4. Risks related to conflicts of interest relating to the Underlying

# Goldman Sachs' activities may have a negative impact on the value of the Underlying and thus on the price of the Securities and the amount of any Settlement Amount.

The Issuer and other companies of Goldman Sachs deal in the Underlyings or in components of the Underlying or in option or futures contracts relating thereto in their ordinary course of business and from time to time participate in transactions connected to the Securities for their own account or for the account of others. These activities may have negative effects on the value of the Underlying and thus on the price of the Securities and the amount of a potential Settlement Amount. The Issuer and other companies of Goldman Sachs may furthermore hold interests in individual Underlyings or in companies contained therein, which may lead to conflicts of interest in connection with the Securities.

The Issuer and other companies of Goldman Sachs may act as a syndicate member, as financial adviser, or as commercial bank in connection with future offers of the Underlying or components of the Underlying; activities of this nature may entail conflicts of interest and have an effect on the price of the Securities.

The Issuer may use part or all of the proceeds from the sale of the Securities for hedging transactions. These hedging transactions may affect the price of the Underlyings or of the components of the Underlying that is formed on the market.

The Issuer and other companies of Goldman Sachs may issue additional derivative securities relating to the relevant Underlying or components of the Underlying including those, which have the same or similar features as the Securities. The introduction of such products competing with the Securities may have an effect on the price of the Underlying or of the components of the Underlying and thus on the price of the Securities. The Issuer and other companies of Goldman Sachs may receive non-public information in relation to the Underlying or components of the Underlying, but are not obligated to pass on such information to the Security Holders. Furthermore, companies of Goldman Sachs may publish research reports in relation to the Underlying or components of the Underlying. Activities of the aforementioned nature may entail conflicts of interest and have an effect on the price of the Securities.

# 7.5. Risks in the case of Securities cleared through CREST

Security Holders bear the risk that the enforcement of rights in relation to the Securities cleared through CREST depends on the rules of the relevant clearing system in or through which the Underlying Securities are held.

The Securities to which such CDIs relate (such Securities being "Underlying Securities") (as distinct from the CDIs representing indirect interests in such Underlying Securities) will be held in an account with a custodian. The custodian will hold the Underlying Securities through the relevant Clearing System. Rights in the Underlying Securities will be held through custodial and depositary links through the relevant Clearing System. The legal title to the Underlying Securities or to interests in the Underlying Securities will depend on the rules of the relevant Clearing System in or through which the Underlying Securities are held.

Rights in respect of the Underlying Securities cannot be enforced by holders of CDIs except indirectly through the CREST Depository and CREST International Nominees Limited (the "CREST Nominee") who in turn can enforce rights indirectly through the intermediary depositaries and custodians described above. The enforcement of rights in respect of the Underlying Securities will therefore be subject to the local law of the relevant intermediary. These arrangements could result in an elimination or reduction in the payments that otherwise would have been made in respect of the Underlying Securities in the event of any insolvency or liquidation of the relevant intermediary, in particular where the Underlying Securities held in clearing systems are not held in special purpose accounts and are fungible with other securities held in the same accounts on behalf of other customers of the relevant intermediaries.

If a matter arises that requires a vote of Security Holders, the Issuer may make arrangements to permit the holders of CDIs to instruct the CREST Depository to exercise the voting rights of the CREST Nominee in respect of the Underlying Securities. However, there is no guarantee that it will be possible to put such voting arrangements in place for holders of CDIs. Holders of CDIs will be bound by the arrangements between the Issuer, CREST, the relevant Clearing System, all provisions of the CREST Deed Poll and by all provisions of or prescribed pursuant to the

CREST International Manual (April 2008) issued by CREST and as amended, modified, varied or supplemented from time to time (the "CREST Manual") and the CREST Rules (contained in the CREST Manual) applicable to the CREST International Settlement Links Service. Holders of CDIs must comply in full with all obligations imposed on them by such provisions.

Investors in CDIs should note that the provisions of the CREST Deed Poll, the CREST Manual and the CREST Rules contain indemnities, warranties, representations and undertakings to be given by holders of CDIs and limitations on the liability of the CREST Depository as issuer of the CDIs. Holders of CDIs may incur liabilities resulting from a breach of any such indemnities, warranties, representations and undertakings in excess of the money invested by them. As a result, the rights of and returns received by holders of CDIs may differ from those of holders of the Securities which are not represented by CDIs.

Investors in CDIs should note that holders of CDIs may be required to pay fees, charges, costs and expenses to the CREST Depository in connection with the use of the CREST International Settlement Links Service. These will include the fees and expenses charged by the CREST Depository in respect of the provision of services by it under the CREST Deed Poll and any taxes, duties, charges, costs or expenses which may be or become payable in connection with the holding of the Underlying Securities through the CREST International Settlement Links Service.

Investors in CDIs should note that none of the Issuer, the Guarantor or any Agent will have any responsibility for the performance by any intermediaries or their respective direct or indirect participants or accountholders acting in connection with CDIs or for the respective obligations of such intermediaries, participants or accountholders under the rules and procedures governing their operations.

None of the Issuer, the Guarantor or any Agent makes any representation or warranty as to the tax consequences of an investment in CDIs and/or the tax consequences of the acquisition, holding, transfer or disposal of CDIs by any investor (including, without limitation, whether any stamp duty, stamp duty reserve tax, excise, severance, sales, use, transfer, documentary or any other similar tax, duty or charge may be imposed, levied, collected, withheld or assessed by any government, applicable tax authority or jurisdiction on the acquisition, holding, transfer or disposal of CDIs by any investor). The tax consequences for each investor in CDIs can be different. Therefore, investors and counterparties should consider consulting with their tax advisers as to their specific consequences, including, in particular, whether United Kingdom stamp duty reserve tax will be payable on transfers of CDIs in uncertificated form within CREST.

An amount for or on account of United Kingdom income tax may have to be withheld on payments in respect of Underlying Securities to which CDIs relate which constitute interest for United Kingdom tax purposes, certain annual payments and certain manufactured payments, in each case subject to the availability of exemptions or reliefs or subject to any direction to the contrary from HM Revenue & Customs in respect of such relief as may be available under an applicable double taxation treaty.

In addition, persons in the United Kingdom may be required to provide certain information to HM Revenue & Customs about payments derived from securities (whether income or capital), certain payments of interest (including the amount payable on the redemption of a deeply

discounted security) and certain securities transactions. In certain circumstances, such information may be exchanged with tax authorities in other countries.

# 8. Risks factors associated with tax and regulation of the Securities

In this category, investors will find a description of the specific material risks associated with the tax assessment of the securities or the regulation of the Guarantor. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

### 8.1. Risks due to changes in tax law

Security Holders bear the risk of loss due to the tax treatment of the Securities. In addition, the tax assessment of the Securities may change. This may have a significant adverse effect on the price and redemption of the Securities and the payment under the Securities.

In the event of a tax deduction or withholding tax, the Security Holder may be forced to realise losses. This is the case if the amount to be paid by the Issuer for each Security is less than the amount of the capital invested to purchase the Security.

Tax law and practice are subject to change, possibly with retroactive effect. Such a change may result in a change in the tax assessment of the Securities issued or offered under the Base Prospectus compared to the view which the Security Holder had at the time of purchase. Security Holders therefore bear the risk that they may incorrectly assess the taxation of income from the purchase of the Securities. However, it is also possible that the taxation of income from the purchase of the Securities may change to the disadvantage of the Security Holders.

### Payments on the Securities may be subject to United States withholding tax

The Security Holders bear the risk that payments made by the Issuer in connection with the Securities may be subject to U.S. withholding tax under Section 871(m) of the Internal Revenue Code or under the U.S. FATCA rules.

Securities that directly or indirectly reference the performance of United States equities (including an index or basket that includes United States equities) may be subject to withholding tax under Section 871(m) of the U.S. Internal Revenue Code of 1986, as amended.

The applicable Final Terms will indicate whether the relevant Securities are subject to withholding tax under Section 871(m) of the U.S. Internal Revenue Code of 1986.

If the Securities are subject to withholding tax, security holders will not receive payments for the deduction that compensates the withholding. Neither the Issuer nor the Paying Agent or any other person is obliged to make any compensatory payments to the Security Holders. Therefore, in this case the Security Holders will receive lower payments than expected. 8.2. Risks relating to the Potential Failure of The Goldman Sachs Group, Inc., the Issuer or any of its affiliates and consequences under the U.S. Special Resolution Regimes

A potential failure of The Goldman Sachs Group, Inc. ("GSG") or a company affiliated with GSG and measures taken in accordance with the U.S. Resolution Regimes may also affect the Issuer.

In the fall of 2017 the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency issued rules ("QFC Stay Rules") designed to improve the resolvability and resilience of U.S. global systemically important banking organizations ("G-SIBs"), such as the Guarantor and its subsidiaries, and the U.S. operations of foreign G-SIBs, by mitigating the risk of destabilizing closeouts of qualified financial contracts ("QFCs") in resolution. Certain of the Securities, such as the Warrants, and the Guarantee in relation to those Securities may qualify as QFCs.

The QFC Stay Rules seek to eliminate impediments to the orderly resolution of a G-SIB both in a scenario where resolution proceedings are instituted by the U.S. regulatory authorities under the Federal Deposit Insurance Act ("FDI Act") or the Orderly Liquidation Authority under Title II of the Dodd Frank Act ("OLA") (together, the "U.S. Special Resolution Regimes") as well as in a scenario where the G-SIB is resolved under ordinary insolvency proceedings, for example, under Chapter 11 of the U.S. Bankruptcy Code. The QFC Stay Rules (i) require an express contractual recognition that QFCs subject to the QFC Stay Rules will be subject to the statutory stay-and-transfer provisions of the U.S. Special Resolution Regimes and (ii) prohibit QFCs subject to the QFC Stay Rules from having (x) cross-default rights against the party in the G-SIB group based on any parent or other affiliate becoming subject to insolvency proceedings and (y) restrictions on the transfer of related credit enhancements (including guarantees) issued by an affiliate following the affiliate's entry into insolvency proceedings. The terms and conditions of the Securities and the Guarantee do not provide any cross-default rights and conform to the recognition, transfer and other requirements of the QFC Stay Rules as described below.

### Acknowledgment of U.S. Special Resolution Regimes

The Securities and the Guarantee contain explicit contractual recognition that in the event the Issuer or the Guarantor becomes subject to a proceeding under the FDI Act or OLA, the transfer of the Securities and the related Guarantee (together, the "Relevant Agreements") and any interest and obligation in or under the Relevant Agreements, from the Issuer or the Guarantor, respectively, will be effective to the same extent as the transfer would be effective under such U.S. Special Resolution Regimes. In addition, the Securities and the Guarantee contain an express contractual recognition that in the event the Issuer or the Guarantor, or any of their affiliates, becomes subject to a proceeding under a U.S. Special Resolution Regimes, default rights against the Issuer or the Guarantor with respect to the Relevant Agreements are permitted to be exercised to no greater extent than such default rights could be exercised under such U.S. Special Resolution Regimes. Default rights for such purposes include the right of a party to a QFC to terminate, liquidate or accelerate the QFC or demand payment or delivery thereunder, or exercise certain other rights.

Under current law, the Issuer, as a non-U.S. entity, are not eligible to be placed into proceedings under the U.S. Special Resolution Regimes. However, the Guarantor could be placed into proceedings under OLA, if certain determinations are made by the applicable U.S. regulatory authorities.

In the event that a Relevant Agreement, such as certain Securities (in the case of warrants) and the related Guarantee, are QFCs, and the Guarantor is placed into OLA proceedings, the stay-and-transfer provisions of OLA will apply, notwithstanding that the Securities are governed by the laws of a jurisdiction other than the laws of the United States or a state of the United States.

### Elimination of Restrictions on Transfer of Guarantee in Insolvency

In addition, the Guarantee provides that the Guarantor may assign its rights and delegate its obligations under the Guarantee to another entity as transferee as part of the resolution, restructuring, or reorganization of the Guarantor upon or following the Guarantor becoming subject to any receivership, insolvency, liquidation, resolution, or similar proceeding. This is not limited to a proceeding under the U.S. Special Resolution Regimes but would also include, for example, a proceeding under Chapter 11 of the U.S. Bankruptcy Code. It is possible, although not required, that in connection with a resolution of the Guarantor under the U.S. Bankruptcy Code the Guarantor may seek to transfer certain of its guarantee obligations to another entity.

Security Holders may be affected by the risk that the obligations of the Guarantor may be transferred to another entity in the event resolution measures are taken in the United States or that the obligations of the Guarantor under the Guarantee will not be transferred to another entity while other liabilities and assets of the Guarantor are transferred in connection with such resolution measures.

Investors should be aware that the taking of resolution measures or even the suggestion of the potential taking of resolution measures in respect of the Guarantor could have a material adverse effect on the rights of Security Holders, and could lead to a loss of some or all of the investment. Security Holders may not be able to anticipate the exercise of any resolution measures and will have very limited rights to challenge such measures, even where such measures have resulted in the transfer of the Guarantee.

# 9. Risk factors associated with conflicts of interest between Goldman Sachs and Security Holders

The Issuer may enter into transactions or undertake transactions in their general business operations which are contrary to the interests of the Security Holders which do not take these into account. In this category, investors will find a description of those specific material risks in connection with conflicts of interest between Goldman Sachs and Security Holders. The risks in this category are classified according to their materiality based on the assessment of the Issuer. The most material risks are mentioned first.

### 9.1. Conflicts of interest in connection with the determination of purchase prices

# The Issuer and its affiliated companies may pursue interests in setting the Margin that conflict with the interests of the Security Holders.

The purchase price of the Securities may, where appropriate in addition to fixed issue surcharges, management fees or other fees, contain surcharges that are not transparent to the Security Holder on the initial mathematical "fair" price of the Securities (the "Margin"), which adversely affects the profit of the Security Holders. This Margin is determined by the Issuer at its reasonable discretion and may differ from the premiums charged by different issuers for comparable securities.

The distribution margin includes expenses for fees such as distribution bonuses which the Issuer collects and passes on to distribution partners. The Security Holders bear the risk that the distribution margin adversely affects the profit of the Security Holders.

The sales bonuses are passed on to the sales partners and may result in conflicts of interest at the level of the sales partner to the detriment of the Security Holder because this could create an incentive for the sales partner to sell products with a higher sales bonus preferentially to its customers.

### 9.2. Conflicts of interest in connection with commission payments

# The Issuer and its affiliated companies may pursue interests in setting commissions that conflict with the interests of the Security Holders.

It must be noted that the selling price of the Securities may contain commissions charged by the Market Maker for the issue or which may be passed on by the Market Maker to distribution partners in whole or in part as consideration for distribution activities. This may lead to a difference between the fair price of the Security and the bid and ask prices quoted by the Market Maker, which is usually higher at the beginning of trading in the Securities and is reduced over time. Commissions that may be contained therein have a negative effect on the Security Holder's ability to generate earnings. It must furthermore be considered that the payment of these commissions to distribution partners may lead to conflicts of interest for the detriment of the Security Holder, since this could provide an incentive for the distribution partner to prefer selling products with higher commissions to its clients. Security Holders should therefore inquire with their house bank or their financial advisor about the existence of such conflicts of interest. Information about the amount of commission payments by the Offeror are found under "Other Information" in the Final Terms, as the case may be.

# 9.3. Conflicts of interest in connection with the Market Making by Goldman Sachs

The Issuer and its affiliated companies may pursue interests in Market Making that conflict with the interests of the Security Holders.

Goldman Sachs (the "Market Maker") intends to quote bid and ask prices for the Securities of an issue on a regular basis under normal market conditions, however Goldman Sachs does not

commit and is under no obligation legal or otherwise to quote bid and ask prices for the Securities of an issue. If the Market Maker does make a market for the Securities, Security Holders should note that delays may occur during the price determination, which may for example result from Market Disruptions or system problems. Goldman Sachs will in its function as Market Maker take the directly opposite economic position to the Security Holder immediately with or immediately after the trade and will either offset, hedge, or hold this position. This may also occur, for example, by entering short positions.

In detail, the procedures are as follows: if a trade is concluded at a bid or offer price quoted by the Market Maker, the Market Maker regularly incurs a risk position immediately after the trade that is directly opposite to the position taken by the Security Holder through the trade. The Goldman Sachs Group will bundle the risk positions resulting from these trades and, if appropriate, offset compensating trading positions against each other. For positions going beyond this, the Goldman Sachs Group will either hedge itself through suitable offsetting transactions on the market for the Underlying of the Security or different markets or decide to maintain the resulting risk position. Security Holders should note that the Goldman Sachs Group may also take positions in the Underlying of that Security and other markets and that these may lead to market movements.

It must furthermore be considered that the bid and ask prices quoted by the Market Maker for the Securities are calculated based on customary price models, which are used by the Market Maker and other traders, and which determine the fair price of the Securities taking into account various factors affecting the price. The circumstances based on which the Market Maker determines the bid and ask prices quoted on the secondary market in particular include the fair price of the Securities, which depends, inter alia, on the price of the Underlying, as well as the spread between bid and ask prices aimed for by the Market Maker (the so-called "Bid-Ask Spread"), which the Market Maker determines depending on supply and demand for the Securities and based on revenue considerations. In addition, an originally charged offering premium and any fees or costs to be deducted from the Settlement Amount at the time of maturity of the Securities such as commissions, transaction fees, administration fees, or comparable fees are regularly taken into account. The pricing on the secondary market is furthermore affected by a Margin contained in the sale price of the Securities or by other income such as paid or expected dividends or other income from the Underlying or its components if the Issuer is entitled to it according to the structure of the Securities.

Certain costs such as charged administration costs are often not spread equally across the term of the Securities (*pro rata temporis*) and deducted during the pricing, but are deducted in full from the fair price of the Securities at an earlier date at the discretion of the Market Maker. This applies accordingly to any Margin contained in the sale price of the Securities as well as to dividends and other income from the Underlying, to which the Issuer is entitled according to the structure of the Securities. These are often not deducted reducing the price when the Underlying or its components are traded "ex dividend" but already at an earlier point in time during the term, based on the dividends expected for the entire term or for a specific period of time. The speed of the deduction depends, *inter alia*, on the amount of any net return from the Securities for the Market Maker.

The prices quoted by the Market Maker may accordingly differ significantly at the relevant time from the fair price or the price of the Securities to be expected economically due to the aforementioned factors. Furthermore, the Market Maker may change the method based on which it determines the quoted prices at any time, e.g. by taking into account the applicable interest rate premium for notes of the Guarantor compared to the risk free interest rate (*Credit Spread*) or by increasing or reducing the Bid-Ask Spread. Any such deviation from the fair price of the Securities may cause the bid and ask prices quoted by other security traders for the Securities to differ significantly (both upwards and downward) from the bid and ask prices quoted by the Market Maker.

# 9.4. Conflicts of interest relating to the various functions of Goldman Sachs in connection with the issue

The Issuer and its affiliated companies may, in exercising their functions, for example as issue agent, Calculation Agent or Paying and/or Administration Agent, pursue interests which conflict with the interests of the Security Holders.

The Issuer and other companies of Goldman Sachs may where appropriate carry out various functions in connection with the offer and the sale of the Securities, for example as issue agent, Calculation Agent, Paying and/or Administration Agent. It is furthermore also possible that companies of Goldman Sachs act as counterparty in hedging transactions in connection with the obligations of the Issuer under the Securities or as Market Maker (see also under "II.9.3. Conflicts of interest in connection with the market making by Goldman Sachs" or under "Other Information" in the Final Terms). Due to the various functions and the obligations resulting from them in each case, conflicts of interest may arise both among the relevant companies of Goldman Sachs and between them and the Security Holders. It must be considered in particular in connection with the function as Calculation Agent, e.g. with respect to the determination of the market price, the exchange rate or the delivery amount, that conflicts of interest may occur, since the Calculation Agent has the right in certain cases that are specified in the Conditions to make certain determinations in its reasonable discretion, which are binding for the Issuer and Security Holders. Such determinations may have a negative effect on the price of the Securities and be correspondingly disadvantageous for the Security Holder.

## 9.5. Interests of third parties involved in the issue

The Issuer may involve cooperation partners and external advisors in the issuance of Securities that pursue their own interests in the course of their activity that may conflict with or do not take into account the interests of the Security Holders what may have an adverse effect on the value of the Securities.

The Issuer can involve cooperation partners and external advisors in the issuance of Securities, for example for the composition and adjustment of a basket or Index. It is possible that these cooperation partners and advisors may pursue their own interests in the course of their activity

that may conflict with or do not take into account the interests of the Security Holders. Therefore, the activities of the cooperation partners and external advisors may have an adverse effect on the value of the Securities.

### **III. INFORMATION ABOUT THE SECURITIES**

The following information relating to the Securities will be specified and/or completed by the information contained in the applicable Final Terms which are applicable to the respective issuance. The Base Prospectus provides for the preparation of Final Terms in the following three scenarios: (i) start of a new offer of Securities, (ii) increase of issue size of Products already issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 and/or increase of issue size of Products which will be issued under this Base Prospectus dated 3 February 2023, or (iii) continuation of an offer of Securities already issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022.

### 1. General Information about the Securities

### 1.1 Interests of individuals or legal entities involved in the issue

For information about the interests of individuals or legal entities involved in the issue as well as potential conflicts of interests resulting from this, please see "II.9. Risk factors associated with conflicts of interest between Goldman Sachs and Security Holders". For information about the interests of individuals or legal entities involved in the issue as well as potential conflicts of interests resulting from this and which are not known at the date of the Base Prospectus please see "Interests of natural and legal persons involved in the issue/offer" under "Other information" in the applicable Final Terms.

# 1.2 Description of the Securities

The Securities issued by Goldman, Sachs & Co. Wertpapier GmbH may be linked to Indices, Shares or Securities representing Shares, Shares of an Exchange Traded Fund, Foreign Exchange Rates, Commodities or Futures Contracts as Underlying or, in the case of a Basket as Underlying, Basket Component, as set out in the applicable Final Terms. The Settlement Amount and, if provided for in the applicable Final Terms, the Coupon Amount are dependent on the development of the Underlying and/or the Basket Components. The Securities may also be structured in a way so that the Coupon Amount is not dependent on the development of the Underlying and/or the Basket Components. The Goldman Sachs Group, Inc. (the "Guarantor") assumes the unconditional and irrevocable guarantee for the payment of the Settlement Amount and any other amounts payable by the Issuer under the Securities. The applicable securities identification number of the Securities are set out in the applicable Final Terms.

Generally, there are two different methods of calculating the Settlement Amount, depending on the structure of the Securities.

• In the case of Securities that provide for a Nominal and/or Calculation Amount:

If the Securities provide for a par value (the "Nominal") and/or calculation amount (the "Calculation Amount"), which is specified in Part A – Product specific terms of the applicable Final Terms, then the Settlement Amount is typically calculated on the basis of the Nominal and/or Calculation Amount, the Performance of the Underlying and/or the Performance of the Basket Components and other factors, as the case may be. The "Performance of the Underlying" and/or the "Performance of the Basket Components" is specified in Part A – Product specific terms of the applicable Final Terms and is generally equal to the ratio between a level of the Underlying and/or the relevant Basket Component on the Final Valuation Date specified in Part A – Product specific terms of the applicable Final Terms (the "Reference Price") to a level of the Underlying and/or the relevant Basket Component at the beginning of the term of the Securities (the "Initial Reference Price") as specified in the applicable Final Terms and/or to another threshold (e.g. Strike) as specified in the applicable Final Terms.

The Securities may be issued at par value (par = 100% of the Nominal) and/or at the Calculation Amount, below or above par value. Below or above par means that a new Security is issued at a discount ("Disagio") or premium ("Agio") to par value. It should be noted that the Nominal and/or Calculation Amount may not necessarily equal the fair market value of the Security.

• In the case of Securities, which <u>do not</u> provide for a Nominal and/or Calculation Amount:

If the Securities do not provide for a Nominal and/or Calculation Amount, then the Settlement Amount is typically calculated on the basis of the Multiplier, a level of the Underlying and/or the relevant Basket Component on the Final Valuation Date specified in Part A – Product specific terms of the applicable Final Terms (the "**Reference Price**") and other factors, as the case may be. The "**Multiplier**" is specified in Part A – Product specific terms of the applicable Final Terms and specifies how many units of the Underlying the Security corresponds to. The Multiplier is expressed as a decimal, so a Multiplier of e.g. 0.01 indicates that a Security corresponds to one-hundredth of a unit of the Underlying.

Two methods are used to calculate the performance of the Underlying.

- In the case of a **European Performance Calculation**, the performance of the Underlying and/or the Basket Components is observed between the Initial Valuation Date and a future Final Valuation Date.
- In the case of an **Asian Performance Calculation**, the performance is calculated as the average performance of the Underlying and/or the Basket Components at several recurrent Valuation Dates. Compared to the European Performance Calculation, the price of the Underlying and/or the Basket Components at a particular Valuation Date is only considered on a proportional basis in the calculation of the Performance of the Underlying and/or the Basket Components. For example, if the applicable level, price or rate or other applicable value of the particular Underlying and/or Basket Component dramatically increases on a Valuation Date (but not the other Valuation Date), the return on the

Securities may be significantly less than it would have been had it been linked only to the applicable level, price, rate or other value of the Underlying and/or Basket Component on that single date.

There are different styles of the right to exercise the Securities. The relevant exercise style will be specified in the applicable Final Terms. The following cases should be distinguished:

- Securities with **European Exercise Style** can only be exercised at the end of the term and/or are automatically exercised at the end of the term, if provided for in the applicable Final Terms. As a consequence, the Final Valuation Date relevant for the determination of the Reference Price is set out in the applicable Final Terms and the exercise of the Security Right during the term is excluded.
- In the case of Securities with American Exercise Style or Bermudan Exercise Style, the Security Right may be exercised on the dates specified in the Final Terms during the term of the Securities. In this case, the Security Holder is able, by choosing an Exercise Date to select the Final Valuation Date and the date of maturity relevant for determining the Reference Price. Security Holders should note in this context that, in accordance with the applicable Conditions, the exercise of the Securities may be restricted during certain periods or when certain conditions are fulfilled.

A Security is exercised either by submitting a formal Exercise Notice as specified in more detail in the General Conditions, which is subject to specific requirements as to form and timing. If provided for in the applicable Final Terms, Securities are automatically exercised at the end of their term without the need for a separate declaration of the respective Security Holder. If the applicable Final Terms stipulate that the Securities must be exercised in order for the Security Holder to receive the amount payable (or other benefit to be received) under the Securities, the Security Holder must exercise the Securities in accordance with the provisions set forth in the General Conditions in order to receive such payment (or other benefit) due under the Securities. If a Security Holder decides not to exercise the Securities (or does not validly exercise the Securities in a timely manner), the Securities will expire worthless and the Security Holder will suffer a total loss of the invested capital.

A Security does not, unless expressly provided, confer a right to receipt of dividend payments and does not confer a right to an interest payment, so does not provide a current yield. This means that potential losses in value of the Security may not be compensated by income generated by the Security.

The mechanism of the respective Securities is further described in the section "III.2 Explanation of mechanism of Securities" below.

This Base Prospectus, including the Issue Specific Terms, contains options or placeholders which, depending on the product and issue, are applicable or will be completed. They are marked by square brackets "[]" or placeholders "•". They will be specified or completed in the Final Terms at the time of issue.

## 1.3 Applicable law

The form and content of the Securities and all rights and obligations of the Issuer and of the Security Holders will be governed by, and construed in all respects in accordance with the laws of Germany and/or the laws of England and Wales, as set out for each series of Securities in the applicable Final Terms.

The form and content of the Guarantee and all rights and obligations arising out of or in connection with it are governed by the laws of Germany.

In the case of Securities governed by the laws of Germany (the "German Securities") pursuant to the Final Terms, Frankfurt am Main shall be the place of performance of the Securities governed by the laws of Germany. Frankfurt am Main will, in addition, be the place of jurisdiction for all lawsuits or other proceedings from or in connection with the German Securities for merchants, legal persons under public law, or special assets (*Sondervermögen*) under public law, and person without a general place of jurisdiction in Germany. In the aforementioned cases, Frankfurt am Main is the exclusive place of jurisdiction for all lawsuits against the Issuer.

In the case of Securities governed by the laws of England and Wales (the "English Securities") pursuant to the Final Terms the courts of England are to have exclusive jurisdiction to settle any disputes which may arise out of or in connection with the Securities (including a dispute relating to any non-contractual obligations arising out of or in connection with the Securities).

Notwithstanding the foregoing, in respect of both German Securities and English Securities (a) Finnish law and jurisdiction will be applicable with regard to the registration of any such Securities in Euroclear Finland Oy, the Finnish Central Securities Depository Ltd. ("Euroclear Finland"), (b) Norwegian law and jurisdiction will be applicable with regard to the registration of any such Securities in Verdipapirsentralen ASA, the Norwegian Central Securities Depositary ("VPS"), (c) Swedish law and jurisdiction will be applicable with regard to the registration of any such Securities in Euroclear Sweden AB, the Swedish Central Securities Depositary ("Euroclear Sweden"), (d) Dutch law and jurisdiction will be applicable with regard to the registration of any such Securities in Nederlands Central Instituut voor Giraal Effectenverkeer B.V., the Dutch Central Securities Depositary ("Euroclear Netherlands") and (e) French law and jurisdiction will be applicable with regard to the registration of any such Securities in Euroclear France (as defined below).

# 1.4 Currency of the Securities

The Securities will be offered for purchase (offer subject to change) in the Settlement Currency which is set out in the applicable Final Terms. Exchange and off-exchange trading in the Securities (if applicable) will likewise be conducted in the Settlement Currency. The disbursement of the Settlement Amount (if any) will be made in the Settlement Currency (following a conversion into the Settlement Currency, as the case may be). If a conversion of the Settlement Amount into the Settlement Currency is required, the conversion takes place either on the basis of a specific exchange rate or, in the case of Securities with a "quanto" feature, at an exchange rate of one unit of the Reference Currency to one unit of the Settlement Currency.

### 1.5 Clearing Systems and form and delivery

Any investor will need to be able to hold the Securities (directly or indirectly through an intermediary).

The Securities are cleared either by (i) Clearstream Banking AG, Frankfurt am Main, Mergenthalerallee 61, 65760 Eschborn ("Clearstream Frankfurt"), (ii) Euroclear Bank SA/NV, 1 Boulevard du Roi Albert II, B-1210 Brussels, ("Euroclear") and/or Clearstream Banking, société anonyme, Luxembourg, 42 Avenue JF Kennedy, L-1855 Luxembourg ("Clearstream Luxembourg"), (iii) Euroclear Finland Oy, the Finnish Central Securities Depository Ltd., Urho Kekkosen katu 5 C, 00100 Helsinki, Finland ("Euroclear Finland"), (iv) Euroclear Sweden AB, the Swedish Central Securities Depositary, Klarabergsviadukten 63, Stockholm, 11164, Sweden ("Euroclear Sweden"), (v) Nederlands Centraal Instituut voor Giraal Effectenverkeer B.V., the Dutch Central Securities Depositary, Herengracht 459, 1017BS Amsterdam, the Netherlands ("Euroclear Netherlands"), (vi) Verdipapirsentralen ASA, the Norwegian Central Securities Depositary, Biskop Gunnerus'gt 14A, Oslo, 0185, Norway ("VPS"), (vii) Euroclear UK & Ireland Limited (formerly known as CREST Co Limited), 33 Cannon Street, London EC4M 5SB, UK ("CREST"), (viii) Euroclear France S.A., the French Central Securities Depositary, 66 Rue de la Victoire, 75009 Paris, France ("Euroclear France") or any other Clearing System set out in Part B (general terms) of the applicable Issue Specific Terms.

German Securities issued by the Issuer will, save as set out below, be represented by a permanent global bearer note (the "Global Bearer Note") which is deposited with the applicable Clearing System. Each Global Bearer Note representing the Securities (or any Nominal and/or Calculation Amount thereof) of a relevant Series will set out therein the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions). If permitted under the law applicable in relation to the registration, each Global Bearer Note will only make reference to the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions) and as a consequence the applicable Issue Specific Terms and the General Conditions will not be replicated in therein. No German Securities will be issued in definitive form.

English Securities issued by the Issuer will, save as set out below, be represented by a registered global note (the "Global ICSD Registered Note") deposited with, and registered in the name of, a common depositary for Euroclear and Clearstream Luxembourg (the "ICSDs" and each an "ICSD"). Each Global ICSD Registered Note representing the Securities (or any nominal amount thereof) of a relevant Series will set out therein the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions). If permitted under the law applicable in relation to the registration, each Global ICSD Registered Note will only make reference to the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions) and as a consequence the applicable Issue Specific Terms and the General Conditions will not be replicated in therein.

No English Securities will be issued in definitive form. The persons for the time being appearing in the books of any ICSD as the holder of a particular number or Nominal and/or Calculation

Amount of such Securities shall be treated as the holder thereof and as the person entitled to exercise the rights represented by the relevant Securities for all purposes other than with respect to the payment of the Settlement Amount or any interest in respect of such number or Nominal and/or Calculation Amount, as the case may be, of such Securities, for which purpose the nominee for the common depositary shall be treated as the holder of such number or Nominal and/or Calculation Amount, as the case may be, of such Securities in accordance with, and subject to the terms of the relevant registered global note.

Notwithstanding the foregoing, German Securities and English Securities may, in addition, also be issued by the Issuer and registered with:

- (i) Euroclear Finland in the Euroclear Finland System ("Euroclear Finland Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with Finnish Regulations;
- (ii) Euroclear Sweden ("Euroclear Sweden Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with the SFIA Act (as defined in Section 3 of the General Conditions);
- (iii) Euroclear Netherlands ("Euroclear Netherlands Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with Euroclear Netherlands Rules (as defined in Section 3 of the General Conditions);
- (iv) Euroclear France ("**Euroclear France Registered Securities**") in accordance with Euroclear France Rules (as defined in Section 3 of the General Conditions); and
- (v) VPS ("VPS Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with the NFIA Act (as defined in Section 3 of the General Conditions);

in each case, as specified in the applicable Final Terms.

Euroclear Finland Registered Securities will be registered with Euroclear Finland and issued in uncertificated and dematerialized book-entry form in accordance with applicable Finnish regulations. The person for the time being shown in the register of Euroclear Finland shall be treated for all purposes by the Issuer, the Agents, Euroclear Finland and all other persons dealing with such person as the holder thereof and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

Euroclear Sweden Registered Securities will be registered with Euroclear Sweden and issued in uncertificated and dematerialized book-entry form in accordance with applicable Swedish legislation. The person for the time being shown in the register of Euroclear Sweden shall be treated for all purposes by the Issuer, the Agents, Euroclear Sweden and all other persons dealing with such person as the holder thereof and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

VPS Registered Securities will be registered with VPS and issued in uncertificated and dematerialized book-entry form in accordance with applicable Norwegian law. The person for the time being shown in the register of VPS shall, in accordance with the rules of VPS, be treated for all purposes by the Issuer, the Agents, VPS and all other persons dealing with such person as the

holder thereof and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

Euroclear Netherlands Registered Securities will be registered with Euroclear Netherlands and issued in uncertificated and dematerialized book-entry form in accordance with applicable Dutch legislation. The person for the time being shown in the register of Euroclear Netherlands shall be treated for all purposes by the Issuer, the Agents, Euroclear Netherlands and all other persons dealing with such person as the holder thereof and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

Euroclear France Registered Securities will be in dematerialized bearer form inscribed in the books of Euroclear France which shall credit the accounts of the Euroclear France Accountholders. The person for the time being shown in the books of the relevant Euroclear France Accountholder shall be treated for all purposes by the Issuer, the Agents, Euroclear France and all other persons dealing with such person as the holder thereof and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

If specified in Part B (general terms) of the applicable Issue Specific Terms, investors may hold indirect interests in the Securities (such Securities being "Underlying Securities") through CREST by holding CDIs. In the case of Securities cleared through CREST, investors will hold indirect interests in the Securities through CREST by holding dematerialised depository interests ("CDIs"). CDIs represent indirect interests in the Securities to which they relate and holders of CDIs will not be the legal owners of the Securities. CDIs are independent securities constituted under English law, held and settled through CREST, which will be issued by CREST Depository Limited or any successor thereto (the "CREST Depository") pursuant to the global deed poll dated 25 June 2001 (as subsequently modified, supplemented and/or restated) (the "CREST Deed Poll").

Following the delivery of the Underlying Securities into a relevant Clearing System permitted in the CREST Manual, indirect interests in Underlying Securities may be delivered, held and settled in CREST by means of the creation of dematerialised CDIs representing indirect interests in the relevant Underlying Securities. Interests in the Underlying Securities will be credited to the CREST Nominee's account with Euroclear and the CREST Nominee will hold such interests as nominee for the CREST Depository which will issue CDIs to the relevant CREST participants.

Transfers of interests in Underlying Securities by the CREST Nominee to a participant of the relevant Clearing System will be effected by cancellation of the CDIs and transfer of an interest in such Underlying Securities to the account of the relevant participant with the relevant Clearing System. It is expected that the CDIs will have the same securities identification number as the ISIN of the Underlying Securities and will not require a separate listing on a recognised stock exchange.

Additional general information with respect to CDIs can be found in the CREST Deed Poll, the CREST Manual and the CREST Rules, copies of which are available from Euroclear UK & Ireland Limited at 33 Cannon Street, London EC4M 5SB or by calling +442078490000 or from the Euroclear UK & Ireland Limited website at www.euroclear.com/site/public/EUI.

# 1.6 Description of the rights attached to the Securities, exercise procedure and consequences of market disruptions

The right to demand payment of the Settlement Amount and/or delivery under the Securities is specified in Section 1 of the General Conditions. The right to demand a Coupon Amount, if any, is specified in Section 4 of the General Conditions.

The exercise procedure for all types of Securities is described in Section 2 of the General Conditions. The exercise procedure applicable to the respective Securities will be set out in the applicable Final Terms.

A description of any market disruptions and any consequences of market disruptions are specified in the relevant Underlying Specific Provisions annexed to the General Conditions.

The adjustment rules with relation to events concerning the Underlying and/or the Basket Components are specified in the relevant Underlying Specific Provisions annexed to the General Conditions.

The applicable Final Terms may provide for an ordinary termination right of the Issuer which is described in Section 12 of the General Conditions. In the case of a termination by the Issuer, the term of the Securities ends prior to maturity and the Security Holder will receive the Settlement Amount (whereby the Termination Date is regarded as the Final Valuation Date for the purposes of calculating the Settlement Amount) or, if provided for in the applicable Final Terms, the Termination Amount in the case of an ordinary termination as set out in the relevant Final Terms.

Section 12 of the General Conditions provides for the right of the Issuer to terminate the Securities following a Change in Law Event. In the case of such termination by the Issuer, the term of the Securities ends prior to maturity and the Security Holder will receive the Non-Scheduled Early Repayment Amount which is determined by the Calculation Agent in its reasonable discretion as a fair market price of a Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant Security.

### 1.7 Information about the Underlying

Provided that the Securities are linked to an Underlying and/or the Basket Components these are specified in the Issue Specific Terms in the relevant Final Terms.

A description of the Underlying and/or of the Basket Components is contained under "Other Information" in the relevant Final Terms.

The source of information regarding information about the past and future performance and volatility of the Underlying and/or of the Basket Components is specified under "Other Information" in the relevant Final Terms, and if such information is available free of charge or not.

Where the applicable Final Terms specify the Underlying and/or a Basket Components to be an index and if such index is provided by a legal entity or a natural person acting in association with, or on behalf of, the Issuer and where the administrator of the index is not included in the public register maintained by the European Securities and Markets Authority ("ESMA") under article 36 of the Benchmark Regulation (Regulation (EU) 2016/1011) (the "Benchmark Regulation") the Issuer makes the following statements:

- the complete set of rules of the index and information on the performance of the index are freely accessible on the Issuer's or the Index Sponsor's website; and
- the governing rules (including methodology of the index for the selection and the rebalancing of the components of the index, description of market disruption events and adjustment rules) are based on predetermined and objective criteria.

The Settlement Amount may be calculated or otherwise determined by reference to an index or a combination of indices. Any such index may constitute a benchmark for the purposes of the Benchmark Regulation. If any such index does constitute such a benchmark, the Final Terms will indicate whether or not the benchmark is provided by an administrator included in the register of administrators and benchmarks established and maintained by ESMA pursuant to article 36 of the Benchmark Regulation. Not every index will fall within the scope of the Benchmark Regulation. Furthermore transitional provisions in the Benchmark Regulation may have the result that the administrator of a particular benchmark is not required to appear in the register of administrators and benchmarks at the date of the applicable Final Terms. The registration status of any administrator under the Benchmark Regulation is a matter of public record and, save where required by applicable law, the Issuer does not intend to update the Final Terms to reflect any change in the registration status of the administrator.

### 1.8 Classification and Ranking of the Securities

The classification and ranking of the Securities is set out in Section 1 of the General Conditions.

# 1.9 Resolutions in respect of the issue of the Securities

The establishment of the Base Prospectus as well as the issue of Securities thereunder have been authorised in the proper manner by the relevant bodies of the Issuer on 4 July 2013. No internal resolutions will be adopted by the Issuer in relation to single issues under the Base Prospectus.

# 1.10 Reasons for the offer and use of proceeds from the sale of the Securities

The proceeds from the Securities are used to hedge the payment obligations arising from the issuance of the Securities pursuant with agreement with Goldman Sachs International and for purposes of the Issuer's ordinary business activities (in any case the Issuer is free in the use of the proceeds of an issue of Securities).

# 1.11 Conditions of the offer, Offeror and Issue Date of the Securities

The offer of Securities under the Base Prospectus is not subject to any conditions. The Final Terms must be read in conjunction with the Base Prospectus and its supplement(s) (if any). The Securities will be offered initially either at the start of the direct selling or at the beginning of the subscription period.

The Securities issued by Goldman, Sachs & Co. Wertpapier GmbH will be offered by Goldman Sachs Bank Europe SE, Marienturm, Taunusanlage 9-10, 60308 Frankfurt am Main with the legal entity identifier (LEI): 8IBZUGJ7JPLH368JE346 (the "**Offeror**"). The valuation of the Securities occurs only after the Securities have been underwritten, which in turn depends on the number of orders received by the Offeror. It must be noted that no valuation occurs for as long as no Securities have been underwritten. The valuation and underwriting are limited to the issue

size specified in the Final Terms. The specified issue size corresponds to the maximum amount of the offered Securities, but permits no conclusion about the volume of the respective effectively issued Securities deposited with a central depositary.

Details of all individual conditions of the offer, the Offeror, the issue date, the start of offer, the start of a subscription period, if any (including any minimum and/or maximum amount of the subscription amount or details on any conditions under which the Issuer will not issue the Securities), and the date of the underwriting agreement regarding a specific issue will be set out under "Conditions of the offer, Offeror and Issue Date of the Securities" under "Other Information" in the applicable Final Terms.

# 1.12 Pricing of the Securities and factors influencing the price of the Securities

The Issue Price of the Securities is set by the Issuer by taking into account several price relevant factors, including the price of the Underlying, the current interest rate, anticipated dividends and other product-specific criteria.

Furthermore, the Issue Price may include an issue premium which is intended to cover commissions for the Issuer or other ancillary costs arising in connection with the issue and hedging of the respective Securities.

The Issue Price is set out in the applicable Final Terms, and any further prices of the Securities are determined at the Issuer's reasonable discretion according to market conditions.

Any costs and disbursements incurred by a Security Holder in connection with a secondary purchase of the Securities are beyond the control of the Issuer.

# 1.13 Listing and trading

The Issuer may introduce or apply for admission of the Securities to one or more stock exchange(s) or multilateral trading system(s) or regulated or unregulated market(s), e.g. on the Frankfurt Stock Exchange, the Stuttgart Stock Exchange or the Luxembourg Stock Exchange. The Issuer may also issue Securities which are not admitted to trading or listed on any market.

Securities of the same class may have been admitted to trading on the same or another market already.

Information in relation to an intended listing will be set out in the applicable Final Terms. Furthermore, information concerning a public offer attaching to the issue of the Securities will be set out in the applicable Final Terms, if any.

In the case of admission to trading and/or listing, the applicable Final Terms will contain the Minimum Trading Number, if any.

Goldman Sachs intends to quote bid and ask prices for the Securities of an issue on a regular basis under normal market conditions. However Goldman Sachs does not commit and is under no obligation legal or otherwise to quote bid and ask prices for the Securities of an issue.

# 1.14 Issue Price, Fees and Commissions

The applicable Final Terms will specify the Issue Price and, if applicable, the type and amount of fees and/or commissions paid by the Issuer to third parties.

Neither the Issuer nor Offeror will charge the subscriber or purchaser any costs over and above the Issue Price or the purchase price.

In the case of Securities with coupon payment, the Final Terms specify whether any accrued interest is included in the purchase price of the Securities (so-called "dirty pricing") or will be charged separately (so-called "clean pricing").

### 1.15 Indication of Yield

The yield of the Securities can only be determined at the end of the term, as only then the actual interest paid (if the Securities provide interest) and the actual Settlement Amount or the equivalent of the delivered underlying and the actual term of the Securities in full are known. Therefore no information on the expected yield can be given.

For the calculation of the individual yield over the entire term, the Security Holder must take into account the price originally paid, the Settlement Amount or the equivalent of the delivered underlying, the amount and time of any interest payments, the term of the Securities and the individual transaction costs.

### 1.16 Publication of post-issuance information

Except for the notices referred to in the Conditions, the Issuer does not intend to publish any post-issuance information unless the Final Terms provide otherwise.

# 2. Explanation of mechanism of Securities

### 2.1 Product No. 1. Explanation of mechanism of Bonus Securities

# (a) Bonus Securities with Multiplier

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the Reference Price taking into account the Multiplier. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount").
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Reference Price taking into account the Multiplier (1:1 participation in the performance of the Underlying).
- A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

### (b) Bonus Securities with Nominal and/or Calculation Amount

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the product of the Nominal and/or Calculation Amount and the Performance of the Underlying. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount").
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is equal to the product of the Nominal and/or Calculation Amount and the Performance of the Underlying (1:1 participation in the performance of the Underlying). The Final Terms may be structured so that the Settlement Amount is equal either to (A) the Nominal and/or Calculation Amount multiplied by Performance of the Underlying provided that a Barrier Event has occurred and the Reference Price is below or, where provided in the Final Terms, equal to the Initial Reference Price or (B) the Nominal and/or Calculation Amount or if provided for in the Final Terms the Nominal and/or Calculation Amount or the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying (whichever amount is greater), if a Barrier-Event has occurred and the Reference Price is above or, where provided in the Final Terms, equal to the Initial Reference Price.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event - Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event - Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

#### (c) Bonus Securities with Nominal and/or Calculation Amount and Participation Factor

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the product of (A) the Nominal and/or Calculation Amount and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount").
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying or if provided for in the applicable Final Terms to the higher of the following amount: the product of the Nominal and/or Calculation Amount and the Performance of the Underlying or the product of (A) the Nominal and/or Calculation Amount and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event - Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event - Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

### 2.2 Product No. 2. Explanation of mechanism of Capped Bonus Securities

#### (a) Capped Bonus Securities with Multiplier

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the Reference Price taking into account the Multiplier. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount") and does not exceed the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Reference Price (taking into account the Multiplier) (1:1 participation in the performance of the Underlying) and does not exceed the Maximum Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event – Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event – Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

### (b) Capped Bonus Securities with Nominal and/or Calculation Amount

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the product of the Nominal and/or Calculation Amount and the Performance of the Underlying. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount") but does not exceed the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is equal to the product of the Nominal and/or Calculation Amount and the Performance of the Underlying (1:1 participation in the performance of the Underlying). The Final Terms may be structured so that the Settlement Amount is equal either to (A) the Nominal and/or Calculation Amount multiplied by Performance of the Underlying provided that a Barrier Event has occurred and the Reference Price is below or, where provided in the Final Terms, equal to the Initial Reference Price or (B) the Nominal and/or Calculation Amount or if provided for in the Final Terms the Nominal and/or Calculation Amount or the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying (whichever amount is

greater), if a Barrier-Event has occurred and the Reference Price is above or, where provided in the Final Terms, equal to the Initial Reference Price. The Settlement Amount does not exceed the Maximum Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event - Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event - Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

# (c) Capped Bonus Securities with Nominal and/or Calculation Amount and Participation Factor

In the case of these Securities, on the Settlement Date Security Holders receive a Settlement Amount, the amount of which depends on the performance of the Underlying.

- (i) If no Barrier Event (as described below) occurs, the Settlement Amount equals the product of (A) the Nominal and/or Calculation Amount and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount") but does not exceed the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but is always equal to the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying or if provided for in the applicable Final Terms to the higher of the following amount: the product of the Nominal and/or Calculation Amount and the Performance of the Underlying or the product of (A) the Nominal and/or Calculation Amount and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1. The Settlement Amount does not exceed the Maximum Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or falls below the Barrier (if the Final Terms provide that "Barrier Event - Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that "Barrier Event - Break" is applicable).

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

#### 2.3 Product No. 3. Explanation of mechanism of Discount Securities

#### (a) Discount Securities with Multiplier

In the case of these Securities, Security Holders participate in the performance of the Underlying throughout the term. The Issue Price or the current price of the Security is below the current market price of the Underlying (Discount) taking into account the Multiplier.

On the Settlement Date the Security Holders receive a Settlement Amount, the amount of which is dependent on the Reference Price.

- (i) If the Reference Price is at or above a threshold specified in Part A Product specific terms of the respective Final Terms (the "**Cap**"), the Settlement Amount equals the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If the Reference Price is below the Cap, Security Holders receive a Settlement Amount which equals the Reference Price taking into account the Multiplier.

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

#### (b) Discount Securities with Nominal and/or Calculation Amount

In the case of these Securities, Security Holders participate in the performance of the Underlying throughout the term. The Issue Price or the current price of the Security is below the Nominal and/or Calculation Amount.

On the Settlement Date the Security Holders receive a Settlement Amount, the amount of which is dependent on the Reference Price.

- (i) If the Reference Price is at or above a threshold specified in Part A Product specific terms of the respective Final Terms (the "**Cap**"), the Settlement Amount equals the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If the Reference Price is below the Cap, Security Holders receive a Settlement Amount equal to the product of the Nominal and/or Calculation Amount and the Performance of the Underlying.

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

#### (c) Discount Securities that may provide for physical settlement

In the case of these Securities, Security Holders participate in the performance of the Underlying throughout the term. The Issue Price or the current price of the Security is below the Nominal and/or Calculation Amount and/or the current market price of the Underlying (Discount) taking into account the Multiplier.

On the Settlement Date the Security Holders receive a Settlement Amount (cash amount or delivery of the Underlying or shares of an Exchange Traded Fund, as set out in the applicable Final Terms) on the Settlement Date, determined as follows:

- (i) If the Reference Price is at of or above a threshold specified in Part A Product specific terms of the respective Final Terms (the "Cap"), the Settlement Amount equals the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If the Reference Price is below the Cap, the Security Holder receives delivery of a certain number of the Underlying or shares of an Exchange Traded Fund expressed by the Physical Delivery Unit. Fractions of the Underlying or shares of an Exchange Traded Fund are not delivered, but are compensated by a cash payment, the so-called Fractional Cash Amount.

The Security Holders do not have any claim to or arising out of the Underlying (e.g. voting rights, dividends).

### 2.4 Product No. 4. Explanation of mechanism of Reverse Convertible Securities

#### (a) Reverse Convertible Securities that provide for cash settlement in all cases

Reverse Convertible Securities are linked to the performance of the Underlying. The Security Holder receives a Settlement Amount on the Settlement Date, determined as follows:

- (i) If the Reference Price is above or, where provided in the Final Terms, equal to the Strike, the Security Holder receives the Nominal and/or Calculation Amount. The Nominal and/or Calculation Amount is the maximum amount that the Security Holder may receive as a Settlement Amount.
- (ii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike, the Security Holder receives a Settlement Amount in the amount of the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying. This amount is regularly less than the Nominal and/or Calculation Amount or if the Strike corresponds to the Reference Price it corresponds to the Nominal and/or Calculation Amount.

A further feature of Reverse Convertible Securities is that the Security Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Underlying.

Accrued interest may be payable in addition to the purchase price of the Securities if Reverse Convertible Securities are purchased during the term.

#### (b) Reverse Convertible Securities that may provide for physical settlement

Reverse Convertible Securities are linked to the performance of the Underlying. The Security Holder receives a Settlement Amount (cash amount or delivery of the Underlying or shares of an Exchange Traded Fund, as set out in the applicable Final Terms) on the Settlement Date, determined as follows:

- (i) If the Reference Price is above or, where provided in the Final Terms, equal to the Strike, the Security Holder receives the Nominal and/or Calculation Amount. The Nominal and/or Calculation Amount is the maximum amount that the Security Holder may receive as a Settlement Amount.
- (ii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike, the Security Holder receives delivery of a certain number of the Underlying or shares of an Exchange Traded Fund expressed by the Physical Delivery Unit. Fractions of the Underlying or shares of an Exchange Traded Fund are not delivered, but are compensated by a cash payment, the so-called Fractional Cash Amount.

A further feature of Reverse Convertible Securities is that the Security Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Underlying.

Accrued interest may be payable in addition to the purchase price of the Securities if Reverse Convertible Securities are purchased during the term.

### 2.5 Product No. 5. Explanation of mechanism of Barrier Reverse Convertible Securities

#### (a) Barrier Reverse Convertible Securities that provide for cash settlement in all cases

Barrier Reverse Convertible Securities are linked to the performance of the Underlying. The Security Holder receives a Settlement Amount on the Settlement Date, determined as follows:

- (i) If the Reference Price is above or, where provided in the Final Terms, equal to the Strike, the Security Holder receives the Nominal and/or Calculation Amount. The Nominal and/or Calculation Amount is the maximum amount that the Security Holder may receive as a Settlement Amount.
- (ii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike, but if no Barrier Event (as described below) has occurred during the term of the Securities, the Security Holder likewise receives the Nominal and/or Calculation Amount.
- (iii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike <u>and</u> a Barrier Event has occurred during the term of the Securities, the Security Holder receives a Settlement Amount in the amount of the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying.
- A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the Final Terms reaches or falls below the Barrier (if the Final Terms provide that a "Barrier Event Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that a "Barrier Event Break" is applicable).

A further feature of Barrier Reverse Convertible Securities is that the Security Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Underlying.

Accrued interest may be payable in addition to the purchase price of the Securities if Reverse Convertible Securities are purchased during the term.

#### (b) Barrier Reverse Convertible Securities that may provide for physical settlement

Barrier Reverse Convertible Securities are linked to the performance of the Underlying. The Security Holder receives a Settlement Amount (cash amount or delivery of the Underlying or shares of an Exchange Traded Fund, as set out in the applicable Final Terms) on the Settlement Date, determined as follows:

- (i) If the Reference Price is above or, where provided in the Final Terms, equal to the Strike, the Security Holder receives the Nominal and/or Calculation Amount. The Nominal and/or Calculation Amount is the maximum amount that the Security Holder may receive as a Settlement Amount.
- (ii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike, but if no Barrier Event (as described below) has occurred during the term of the Securities, the Security Holder likewise receives the Nominal and/or Calculation Amount.

(iii) If the Reference Price is below or, where provided in the Final Terms, equal to the Strike <u>and</u> a Barrier Event has occurred during the term of the Securities, the Security Holder receives delivery of a certain number of the Underlying or shares of an Exchange Traded Fund expressed by the Physical Delivery Unit. Fractions of the Underlying or shares of an Exchange Traded Fund are not delivered, but are compensated by a cash payment, the so-called Fractional Cash Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the Final Terms reaches or falls below the Barrier (if the Final Terms provide that a "Barrier Event Touch" is applicable) or if the Observation Price falls below the Barrier (if the Final Terms provide that a "Barrier Event Break" is applicable).

A further feature of Barrier Reverse Convertible Securities is that the Security Holder receives a Coupon Amount on one or more Coupon Payment Dates specified in the Final Terms. The coupon payment is independent of the performance of the Underlying.

Accrued interest may be payable in addition to the purchase price of the Securities if Reverse Convertible Securities are purchased during the term.

# 2.6 Product No. 6. Explanation of mechanism of Reverse Bonus Securities

### (a) Reverse Bonus Securities with Multiplier

In the case of these Securities, Security Holders receive a Settlement Amount on the Settlement Date, the amount of which depends on the performance of the Underlying. A particular feature is that the participation of the Security Holders is **inverse** to the performance of the Underlying.

- (i) If no Barrier Event (as described below) has occurred, the Settlement Amount equals a level specified in Part A Product specific terms of the respective Final Terms (the "**Reverse Level**") minus the Reference Price, taking into account the Multiplier. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "**Bonus Amount**").
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the Reverse Level minus the Reference Price, taking into account the Multiplier (direct participation in the negative Performance of the Underlying), and is at least equal to zero.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Touch" is applicable) or if the Observation Price exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Break" is applicable).

Security Holders have no rights in respect of or arising from the Underlying (e.g. voting rights, dividends).

(b) Reverse Bonus Securities with Nominal and/or Calculation Amount

In the case of these Securities, Security Holders receive a Settlement Amount on the Settlement Date, the amount of which depends on the performance of the Underlying. A particular feature is that the participation of the Security Holders is **inverse** to the performance of the Underlying.

- (i) If no Barrier Event (as described below) has occurred, the Settlement Amount equals the product of (A) the Nominal and/or Calculation Amount and (B) the difference between a level specified in Part A Product specific terms of the respective Final Terms (the "**Reverse Level**") and the Reference Price, divided by the Initial Reference Price. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "**Bonus Amount**").
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the product of (A) the Nominal and/or Calculation Amount and (B) the difference between the Reverse Level and the Reference Price (direct participation in the negative Performance of the Underlying), divided by the Initial Reference Price, and is at least equal to zero.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Touch" is applicable) or if the Observation Price exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Break" is applicable).

Security Holders have no rights in respect of or arising from the Underlying (e.g. voting rights, dividends).

# 2.7 Product No. 7. Explanation of mechanism of Capped Reverse Bonus Securities

#### (a) Capped Reverse Bonus Securities with Multiplier

In the case of these Securities, Security Holders receive a Settlement Amount on the Settlement Date, the amount of which depends on the performance of the Underlying. A particular feature is that the participation of the Security Holders is **inverse** to the performance of the Underlying.

- (i) If no Barrier Event (as described below) has occurred, the Settlement Amount equals a level specified in Part A Product specific terms of the respective Final Terms (the "**Reverse Level**") minus the Reference Price, taking into account the Multiplier. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "**Bonus Amount**"). and does not exceed the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the Reverse Level minus the Reference Price, taking into account the Multiplier (direct participation in the negative Performance of the Underlying), and is at least equal to zero and does not exceed the Maximum Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Touch" is applicable) or if the Observation Price exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Break" is applicable).

Security Holders have no rights in respect of or arising from the Underlying (e.g. voting rights, dividends).

# (b) Capped Reverse Bonus Securities with Nominal and/or Calculation Amount

In the case of these Securities, Security Holders receive a Settlement Amount on the Settlement Date, the amount of which depends on the performance of the Underlying. A particular feature is that the participation of the Security Holders is **inverse** to the performance of the Underlying.

- (i) If no Barrier Event (as described below) has occurred, the Settlement Amount equals the product of (A) the Nominal and/or Calculation Amount and (B) the difference between a level specified in Part A Product specific terms of the respective Final Terms (the "Reverse Level") and the Reference Price, divided by the Initial Reference Price. The Settlement Amount is at least equal to a minimum amount specified in Part A Product specific terms of the respective Final Terms (the "Bonus Amount") and does not exceed the Maximum Amount specified in Part A Product specific terms of the respective Final Terms.
- (ii) If a Barrier Event has occurred, the Settlement Amount is no longer at least equal to the Bonus Amount, but always equals the product of (A) the Nominal and/or Calculation Amount and (B) the difference between the Reverse Level and the Reference Price (direct participation in the negative Performance of the Underlying), divided by the Initial Reference Price, and at least equal to zero and does not exceed the Maximum Amount.

A "Barrier Event" occurs if a price of the Underlying (the "Observation Price") specified in the applicable Final Terms reaches or exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Touch" is applicable) or if the Observation Price exceeds the Barrier (if the Final Terms provide that a "Barrier Event - Break" is applicable).

Security Holders have no rights in respect of or arising from the Underlying (e.g. voting rights, dividends).

# 2.8 Product No. 8. Explanation of mechanism of Open End Securities

#### (a) Open End Securities with Nominal and/or Calculation Amount

Open End Securities do not have a specified limited term. The term of the Securities ends either (i) on the exercise of the Securities by the Security Holders or (ii) on ordinary termination by the Issuer or (iii) on extraordinary termination by the Issuer.

The Settlement Amount equals the Nominal and/or Calculation Amount multiplied by the Performance of the Underlying and then multiplied by the Management Factor or, in the case of Open End Securities with a Quanto feature, the Fee Factor.

#### (b) Open End Securities with Multiplier

Open End Securities do not have a specified limited term. The term of the Securities ends either (i) on the exercise of the Securities by the Security Holders or (ii) on ordinary termination by the Issuer or (iii) on extraordinary termination by the Issuer.

The Settlement Amount equals the Reference Price multiplied by the Multiplier and then multiplied by the Management Factor or, in the case of Open End Securities with a Quanto feature, the Fee Factor.

### 2.9 Product No. 9. Explanation of mechanism of Plain Warrants

(a) Description of Plain Call Warrants with Multiplier and European Exercise Style

Security Holders of Plain Call Warrants expect the price of the Underlying to rise.

Plain Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Plain Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date if the Reference Price exceeds the Strike. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike. The result will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or below the Strike Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

### (b) Description of Plain Put Warrants with Multiplier and European Exercise Style

Security Holders of Plain Put Warrants expect the market price of the Underlying to fall.

Plain Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Plain Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date if the Reference Price is below the Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Strike. The result will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or above the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (c) Description of Plain Call Warrants with Multiplier and American Exercise Style

Security Holders of Plain Call Warrants expect the price of the Underlying to rise.

Plain Warrants have a fixed term. The Security Holders have the right to exercise the Plain Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Plain Warrants during the Exercise Period the Plain Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms

provide for an automatic exercise. Otherwise, the Plain Warrants will expire at the end of the term worthless.

After exercising the Plain Warrants or if an automatic exercise has occurred at the end of the term of the Plain Warrants the Security Holder will receive a Settlement Amount if the Reference Price exceeds the Strike. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike. The result will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or below the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

### (d) Description of Plain Put Warrants with Multiplier and American Exercise Style

Security Holders of Plain Put Warrants expect the price of the Underlying to fall.

Plain Warrants have a fixed term. The Security Holders have the right to exercise the Plain Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Warrants during the Exercise Period the Plain Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms provide for an automatic exercise. Otherwise, the Plain Warrants will expire at the end of the term worthless.

After exercising the Plain Warrants or if an automatic exercise has occurred at the end of the term of the Plain Warrants the Security Holder will receive a Settlement Amount if the Reference Price is below the Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Strike. The result will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or above the Strike the Plain Warrant expires worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (e) Description of Plain Call Warrants with Nominal and/or Calculation Amount and European Exercise Style

Security Holders of Plain Call Warrants expect the price of the Underlying to rise.

Plain Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Plain Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date if the Reference Price exceeds the Strike. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the

Strike falls below the Reference Price whereby the result will be divided by the Initial Reference Price. If the Reference Price is equal to or below the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (f) Description of Plain Put Warrants with Nominal and/or Calculation Amount and European Exercise Style

Security Holders of Plain Put Warrants expect the market price of the Underlying to fall.

Plain Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Plain Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date if the Reference Price is below the Strike. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the Reference Price falls below the Strike whereby the result will be divided by the Initial Reference Price. If the Reference Price is equal to or above the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (g) Description of Plain Call Warrants with Nominal and/or Calculation Amount and American Exercise Style

Security Holders of Plain Call Warrants expect the price of the Underlying to rise.

Plain Warrants have a fixed term. The Security Holders have the right to exercise the Plain Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Plain Warrants during the Exercise Period the Plain Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms provide for an automatic exercise. Otherwise, the Warrants will expire at the end of the term worthless.

After exercising the Plain Warrants or if an automatic exercise has occurred at the end of the term of the Plain Warrants the Security Holder will receive a Settlement Amount if the Reference Price exceeds the Strike. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the Strike falls below the Reference Price whereby the result will be divided by the Initial Reference Price. If the Reference Price is equal to or below the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (h) Description of Plain Put Warrants with Nominal and/or Calculation Amount and American <u>Exercise Style</u>

Security Holders of Plain Put Warrants expect the price of the Underlying to fall.

Plain Warrants have a fixed term. The Security Holders have the right to exercise the Plain Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Plain Warrants during the Exercise Period the Plain Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms provide for an automatic exercise. Otherwise, the Plain Warrants will expire at the end of the term worthless.

After exercising the Plain Warrants or if an automatic exercise has occurred at the end of the term of the Plain Warrants the Security Holder will receive a Settlement Amount if the Reference Price is below the Strike. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the Reference Price falls below the Strike whereby the result will be divided by the Initial Reference Price. If the Reference Price is equal to or above the Strike the Plain Warrants expire worthless.

The leverage effect is one of the main characteristics of Plain Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

#### 2.10 Product No. 10. Explanation of mechanism of Discount Warrants

#### (a) Description of Discount Call Warrants with European Exercise Style

Security Holders of Discount Call Warrants expect the price of the Underlying to rise.

Discount Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Discount Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike. However, the Settlement Amount is limited to the Maximum Amount specified in Part A – Product specific terms of the respective Final Terms. The Maximum Amount is equal to the amount by which a threshold specified in Part A – Product specific terms of the respective Final Terms (the "Cap") exceeds the Strike. The result in each case will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or below the Strike the Discount Warrants expire worthless.

The leverage effect is one of the main characteristics of Discount Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (b) Description of Discount Put Warrants with European Exercise Style

Security Holders of Discount Put Warrants expect the price of the Underlying to fall.

Discount Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Discount Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price is below the Strike. However, the Settlement Amount is limited to the Maximum Amount specified in Part A – Product specific terms of the respective Final Terms. The Maximum Amount is equal to the amount by which a threshold specified in Part A – Product specific terms of the respective Final Terms (the "Cap") falls below the Strike. The result in each case will be multiplied by the Multiplier and, if applicable, multiplied by the Participation Factor and converted into the Settlement Currency. If the Reference Price is equal to or above the Strike the Discount Warrants expire worthless.

The leverage effect is one of the main characteristics of Discount Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (c) Description of Discount Call Warrants with Nominal and/or Calculation Amount and European Exercise Style

Security Holders of Discount Call Warrants expect the price of the Underlying to rise.

Discount Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Discount Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike, whereby the result will be multiplied by the Nominal and/or Calculation Amount and then, if applicable, divided by the Initial Reference Price and, if applicable, multiplied by the Participation Factor and the quotient of 1 and the Reference Price. However, the Settlement Amount is limited to the Maximum Amount specified in Part A – Product specific terms of the respective Final Terms. The Maximum Amount is equal to the amount by which a threshold specified in Part A – Product specific terms of the respective Final Terms (the "Cap") exceeds the Strike, whereby the result will be multiplied by the Nominal and/or Calculation Amount and then, if applicable, divided by the Initial Reference Price and, if applicable, multiplied by the Participation Factor and the quotient of 1 and the Reference Price. If relevant, the result will in each case be converted into the Settlement Currency. If the Reference Price is equal to or below the Strike the Discount Warrants expire worthless.

The leverage effect is one of the main characteristics of Discount Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (d) Description of Discount Put Warrants with Nominal and/or Calculation Amount and European Exercise Style

Security Holders of Discount Put Warrants expect the price of the Underlying to fall.

Discount Warrants have a fixed term and will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Discount Warrants during the term.

The Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price is below the Strike, whereby the result will be multiplied by the Nominal and/or Calculation Amount and then, if applicable, divided by the Initial Reference Price and, if applicable, multiplied by the Participation Factor and the quotient of 1 and the Reference Price. However, the Settlement Amount is limited to the Maximum Amount specified in Part A – Product specific terms of the respective Final Terms. The Maximum Amount is equal to the amount by which a threshold specified in Part A – Product specific terms of the respective Final Terms (the "Cap") falls below the Strike, whereby the result will be multiplied by the Nominal and/or Calculation Amount and then, if applicable, divided by the Initial Reference Price and, if applicable, multiplied by the Participation Factor and the quotient of 1 and the Reference Price. If relevant, the result will in each case be converted into the Settlement Currency. If the Reference Price is equal to or above the Strike the Discount Warrants expire worthless.

The leverage effect is one of the main characteristics of Discount Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# 2.11 Product No. 11. Explanation of mechanism of Mini Future Warrants or Turbo Certificates

# (a) Description of Mini Future Long Warrants or Turbo Long Certificates with American Exercise Style

Security Holders of Mini Future Long Warrants or Turbo Long Certificates expect the market price of the Underlying to rise.

Mini Future Warrants or Turbo Certificates have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Mini Future Warrants or Turbo Certificates on each Business Day (American Exercise Style). After exercising the Mini Future Warrants or Turbo Certificates the Security Holders will receive a Settlement Amount if the Reference Price exceeds the Current Strike. The Settlement Amount is equal to the amount by which the

Reference Price exceeds the Current Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or below the Current Knock-Out Barrier. In the case of a Knock-Out Event, the Mini Future Warrants or Turbo Certificates will expire immediately without the need for separate termination. The Issuer determines the rebate of the Mini Future Warrant or Turbo Certificates (the so-called Knock-Out Settlement Amount) which will be paid to the Security Holders. The Knock-Out Settlement Amount is calculated on the basis of the price of the Underlying after the occurrence of the Knock-Out Event and can amount to zero.

The Issuer adjusts both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing of the Mini Future Warrants or Turbo Certificates.

The leverage effect is one of the main characteristics of Mini Future Warrants or Turbo Certificates. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

(b) Description of Mini Future Short Warrants or Turbo Short Certificates with American Exercise Style

Security Holders of Mini Future Short Warrants or Turbo Short Certificates expect the market price of the Underlying to fall.

The Mini Future Warrants or Turbo Certificates have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Mini Future Warrants or Turbo Certificates on each Business Day (American Exercise Style). After exercising the Mini Future Warrants or Turbo Certificates the Security Holders will receive a Settlement Amount if the Reference Price falls below the Current Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Current Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or above the Current Knock-Out Barrier. In the case of a Knock-Out Event, the Mini Future Warrant or Turbo Certificate will expire immediately without the need for separate termination. The Issuer determines the rebate of the Mini Future Warrant or Turbo Certificates (the so-called Knock-Out Settlement Amount) which will be paid to the Security Holders. The Knock-Out Settlement Amount is calculated on the basis of the price of the Underlying after the occurrence of the Knock-Out Event and can amount to zero.

The Issuer adjusts both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing of the Mini Future Warrants or Turbo Certificates.

The leverage effect is one of the main characteristics of Mini Future Warrants or Turbo Certificates. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

### 2.12 Product No. 12. Explanation of mechanism of Turbo Warrants

#### (a) Description of Turbo Bull Warrants with European Exercise Style

Security Holders of Turbo Bull Warrants expect the market price of the Underlying to rise.

Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Security will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Turbo Warrants during the term.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or below the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Security will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

## (b) Description of Turbo Bear Warrants with European Exercise Style

Security Holders of Turbo Bear Warrants expect the market price of the Underlying to fall.

Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Turbo Security will automatically be exercised on the Final Valuation Date (European Exercise Style). The Security Holders do not have the right to exercise the Turbo Warrants during the term.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price falls below the Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or above the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Warrant will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

### (c) Description of Turbo Bull Warrants with American Exercise Style

Security Holders of Turbo Bull Warrants expect the market price of the Underlying to rise.

Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Security Holders have the right to exercise the Turbo Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Turbo Warrants during the Exercise Period the Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms provide for an automatic exercise. Otherwise, the Turbo Warrants will expire at the end of the term of the Securities worthless.

After exercising the Warrants or if an automatic exercise has occurred at the end of the term of the Warrants the Security Holder will receive a Settlement Amount if the Reference Price exceeds the Strike. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or below the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Warrant will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

#### (d) Description of Turbo Bear Warrants with American Exercise Style

Security Holders of Turbo Bear Warrants expect the market price of the Underlying to fall.

Turbo Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Security Holders have the right to exercise the Turbo Warrants on any Business Day during the Exercise Period. If the Security Holder forego the exercise of the Turbo Warrants during the Exercise Period the Warrants are exercised automatically on the last day of the Exercise Period (American Exercise Style), if the applicable Final Terms provide for an automatic exercise. Otherwise, the Turbo Warrants will expire at the end of the term of the Securities worthless.

After exercising the Warrants or if an automatic exercise has occurred at the end of the term of the Warrants the Security Holder will receive a Settlement Amount if the Reference Price is below the Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or above the Knock-Out Barrier. The Knock-Out Barrier is equal to the Strike. In the case of a Knock-Out Event, the Turbo Warrant will immediately expire worthless without the need for separate termination.

The leverage effect is one of the main characteristics of Turbo Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# 2.13 Product No. 13. Explanation of mechanism of Open End Turbo Warrants or Trader Certificates

(a) Description of Open End Turbo Bull Warrants or Trader Long Certificates with American Exercise Style

Security Holders of Open End Turbo Bull Warrants or Trader Long Certificates expect the market price of the Underlying to rise.

The Open End Turbo Warrants or Trader Certificates have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Open End Turbo Warrants or Trader Certificates on each Business Day (American Exercise Style). After exercising the Open End Turbo Warrants or Trader Certificates the Security Holders will receive a Settlement Amount if the Reference Price exceeds the Current Strike. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Current Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or below the Current Knock-Out Barrier. The Current Knock-Out Barrier is equal to the Current Strike. In the case of a Knock-Out Event, the Open End Turbo Warrant or Trader Certificate will immediately expire worthless without the need for separate termination.

The Issuer adjusts both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing of the Open End Turbo Warrants or Trader Certificates.

The leverage effect is one of the main characteristics of Open End Turbo Warrants or Trader Certificates. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# (b) Description of Open End Turbo Bear Warrants or Trader Short Certificates with American Exercise Style

Security Holders of Open End Turbo Bear Warrants or Trader Short Certificates expect the market price of the Underlying to fall.

The Open End Turbo Warrants or Trader Certificates have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Open End Turbo Warrants or Trader Certificates on each Business Day (American Exercise Style). After exercising the Open End Turbo Warrants or Trader Certificates the Security Holders will receive a Settlement Amount if the Reference Price falls below the Current Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Current Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency.

A Knock-Out Event occurs if the Underlying is equal to or above the Current Knock-Out Barrier. The Current Knock-Out Barrier is equal to the Current Strike. In the case of a Knock-Out Event, the Open End Turbo Warrant or Trader Certificate will immediately expire worthless without the need for separate termination.

The Issuer adjusts both the Current Strike and the Current Knock-Out Barrier on a regular basis, taking into account the costs associated with the daily financing of the Open End Turbo Warrants or Trader Certificates.

The leverage effect is one of the main characteristics of Open End Turbo Warrants or Trader Certificates. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

# 2.14 Product No. 14. Explanation of mechanism of Factor Warrants

## (a) Description of Factor Warrants Long

Security Holders of Factor Warrants Long expect the market price of the Underlying to rise.

Factor Warrants have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Factor Warrants on each Business Day (American Exercise Style). Subject to the occurrence of a Knock-Out Event, after exercising the Factor Warrants the Security Holders will receive a Settlement Amount if the Reference Price exceeds the Current Strike. The Settlement Amount is equal to the amount by which the Reference Price exceeds the Current Strike. The result will be multiplied by the Current Multiplier and, if applicable, converted into the Settlement Currency.

The leverage effect is one of the main characteristics of Factor Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

The Multiplier, the Strike and the Stop-Loss Barrier will be adjusted on a regular basis ("Rolling"). The purpose of the Rolling is to reset the current leverage back to the original leverage, taking into account the costs associated with the daily financing of the Factor Warrants.

Furthermore, the Strike, the Multiplier and the Stop-Loss Barrier will be adjusted intraday in the case that a Stop-Loss Event has occurred. A Stop-Loss Event occurs if the Underlying is equal to or below the Current Stop-Loss Barrier. After the occurrence of a Stop-Loss Event no continuous bid and ask prices will be quoted and Goldman Sachs will determine the so-called "Stop-Loss Reference Price".

In the case of an early termination of the Factor Warrants by the Issuer, the Security Holder will receive the Intrinsic Value of the Factor Warrants on the Termination Date.

If a Knock-Out Event occurs, the term of the Factor Warrants ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the investor will receive the intrinsic value of the Factor Warrant. Investors should note that in this case the Factor Warrants may also expire worthless in the case that the Factor Warrants do not have an intrinsic value. A Knock-Out Event occurs if the Intrinsic Value on any Adjustment Date is (if provided for in the applicable Final Terms) equal to or below the Knock-Out Barrier. "Intrinsic Value" means the Knock-Out Reference Price minus the Current Strike multiplied by the Current Multiplier (if applicable, converted into the Settlement Currency), whereby the Knock-Out Reference Price equals either (i) the Underlying Price on the respective Adjustment Date or (ii), if a Stop-Loss Event has occurred between the time when the Underlying Price is determined on that Adjustment Date and the last adjustment time, the Stop-Loss Reference Price on the relevant Adjustment Date.

# (b) Description of Factor Warrants Short

Security Holders of Factor Warrants Short expect the market price of the Underlying to fall.

The Factor Warrants have an unlimited term. The term ends in the event of (i) the occurrence of a Knock-Out Event, (ii) a termination at short notice by the Issuer or (iii) an exercise by the Security Holder.

The Security Holders have the right to exercise the Factor Warrants on each Business Day (American Exercise Style). Subject to the occurrence of a Knock-Out Event, after exercising the Factor Warrants the Security Holders will receive a Settlement Amount if the Reference Price falls below the Current Strike. The Settlement Amount is equal to the amount by which the Reference Price falls below the Current Strike. The result will be multiplied by the Current Multiplier and, if applicable, converted into the Settlement Currency.

The leverage effect is one of the main characteristics of Factor Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

The Multiplier, the Strike and the Stop-Loss Barrier will be adjusted on a regular basis ("Rolling"). The purpose of the Rolling is to reset the current leverage back to the original leverage, taking into account the costs associated with the daily financing of the Factor Warrants.

Furthermore, the Strike, the Multiplier and the Stop-Loss Barrier will be adjusted intraday in the case that a Stop-Loss Event has occurred. A Stop-Loss Event occurs if the Underlying is equal to or above the Current Stop-Loss Barrier. After the occurrence of a Stop-Loss Event no continuous bid and ask prices will be quoted and Goldman Sachs will determine the so-called "Stop-Loss Reference Price".

In the case of an early termination of the Factor Warrants by the Issuer, the Security Holder will receive the Intrinsic Value of the Factor Warrants on the Termination Date.

If a Knock-Out Event occurs, the term of the Factor Warrants ends automatically, the Security Right or the right to payment of a Settlement Amount expires automatically and the investor will receive the intrinsic value of the Factor Warrant. Investors should note that in this case the Factor Warrants may also expire worthless in the case that the Factor Warrants do not have an intrinsic value. A Knock-Out Event occurs if on any Adjustment Date the Intrinsic Value is (if provided for in the applicable Final Terms) equal to or below the Knock-Out Barrier. "Intrinsic Value"

means the Current Strike minus the Knock-Out Reference Price multiplied by the Current Multiplier (if applicable, converted into the Settlement Currency), whereby the Knock-Out Reference Price equals either (i) the Underlying Price on the respective Adjustment Date or (ii), if a Stop-Loss Event has occurred between the time when the Underlying Price is determined on that date and the last adjustment time, the Stop-Loss Reference Price on the relevant Adjustment Date.

# 2.15 Product No. 15. Explanation of mechanism of Down & Out Put Warrants

## (a) Description of Down & Out Put Warrants with Multiplier

Down & Out Put Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Down & Out Put Warrants will automatically be exercised on the Final Valuation Date.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Reference Price falls below the Strike. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency. However, the maximum Settlement Amount is limited to the difference between the Strike and the Knock-Out Barrier taking into account the Multiplier.

Furthermore, Down & Out Put Warrants are characterised by the fact that a total loss occurs in two cases:

- If the amount by which the Reference Price falls below the Strike is negative or zero the Settlement Amount is zero; or
- if a Knock-Out Event occurs, the Settlement Amount is also zero.

A Knock-Out Event occurs if the Underlying is equal to or below the Knock-Out Barrier. If a Knock-Out Event occurs the Issuer is entitled to terminate the Down & Out Put Warrants immediately if provided for in the applicable Final Terms.

The leverage effect is one of the main characteristics of the Down & Out Put Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

### (b) Description of Down & Out Put Warrants with Nominal and/or Calculation Amount

Down & Out Put Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Down & Out Put Warrants will automatically be exercised on the Final Valuation Date.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the Reference Price falls below the Strike whereby the result will be divided by the Initial Reference Price. However, the maximum Settlement Amount is limited to the product of the Nominal

and/or Calculation Amount and the quotient of (i) the difference between the Strike and the Knock-Out Barrier and (ii) the Initial Reference Price.

Furthermore, Down & Out Put Warrants are characterised by the fact that a total loss occurs in two cases:

- If the amount by which the Reference Price falls below the Strike is negative or zero the Settlement Amount is zero; or
- if a Knock-Out Event occurs, the Settlement Amount is also zero.

A Knock-Out Event occurs if the Underlying is equal to or below the Knock-Out Barrier. If a Knock-Out Event occurs the Issuer is entitled to terminate the Down & Out Put Warrants immediately if provided for in the applicable Final Terms.

The leverage effect is one of the main characteristics of the Down & Out Put Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

#### 2.16 Product No. 16. Explanation of mechanism of Up & Out Call Warrants

### (a) Description of Up & Out Call Warrants with Multiplier

Up & Out Call Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Up & Out Call Warrants will automatically be exercised on the Final Valuation Date.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the amount by which the Strike falls below the Reference Price. The result will be multiplied by the Multiplier and, if applicable, the Participation Factor and converted into the Settlement Currency. However, the maximum Settlement Amount is limited to the difference between the Knock-Out Barrier and the Strike taking into account the Multiplier.

Furthermore, Up & Out Call Warrants are characterised by the fact that a total loss occurs in two cases:

- If the amount by which the Strike falls below the Reference Price is negative or zero the Settlement Amount is zero; or
- if a Knock-Out Event occurs, the Settlement Amount is also zero.

A Knock-Out Event occurs if the Underlying is equal to or above the Knock-Out Barrier. If a Knock-Out Event occurs the Issuer is entitled to terminate the Up & Out Call Warrants immediately if provided for in the applicable Final Terms.

The leverage effect is one of the main characteristics of the Up & Out Call Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

#### (b) Description of Up & Out Call Warrants with Nominal and/or Calculation Amount

Up & Out Call Warrants have a fixed term. Subject to the occurrence of a Knock-Out Event, the Up & Out Call Warrants will automatically be exercised on the Final Valuation Date.

Provided that no Knock-Out Event has occurred, the Security Holders will receive a Settlement Amount on the Settlement Date. The Settlement Amount is equal to the Performance of the Underlying multiplied by the Nominal and/or Calculation Amount and, if applicable, the Participation Factor and converted into the Settlement Currency. Unless otherwise defined in the applicable Final Terms, the Performance of the Underlying is equal to the amount by which the Strike falls below the Reference Price whereby the result will be divided by the Initial Reference Price. However, the maximum Settlement Amount is limited to the product of the Nominal and/or Calculation Amount and the quotient of (i) the difference between the Knock-Out Barrier and the Strike and (ii) the Initial Reference Price.

Furthermore, Up & Out Call Warrants are characterised by the fact that a total loss occurs in two cases:

- If the amount by which the Strike falls below the Reference Price is negative or zero the Settlement Amount is zero; or
- If a Knock-Out Event occurs, the Settlement Amount is also zero.

A Knock-Out Event occurs if the Underlying is equal to or above the Knock-Out Barrier. If a Knock-Out Event occurs the Issuer is entitled to terminate the Up & Out Call Warrants immediately if provided for in the applicable Final Terms.

The leverage effect is one of the main characteristics of the Up & Out Call Warrants. Security Holders will participate disproportionally (with leverage) in the performance of the Underlying. Accordingly, a Security Holder may earn significant profits or incur significant losses.

#### IV. GENERAL CONDITIONS

In the case of (i) an increase of the issue size of a Series of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 and/or (ii) a continuation of the offer of a Series of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 Feburary 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 the relevant information in Section 'IV. General Conditions" of the Securities Note dated 8 July 2020 (as supplemented) and/or the relevant information in Section "IV. General Conditions" of the Securities Note dated 10 February 2021 (as supplemented) and/or the relevant information in Section "IV. General Conditions" of the Base Prospectus dated 9 February 2022 (as supplemented) which are incorporated by reference into this Base Prospectus (see Section "XII.6. Information incorporated by reference") will apply.

## **Introduction**

The following "General Conditions" of the Securities must be read in their entirety, together with Part A – Product specific terms and Part B – General terms of the section entitled "Issue Specific Terms" of the applicable Final Terms (the "Issue Specific Terms") of the relevant Series of Securities which supplement and complete the General Conditions.

The General Conditions will be completed by the additional provisions in relation to the relevant underlying (the "**Underlying Specific Provisions**") set out in the Annex to the General Conditions. The Issue Specific Terms will specify in Part B – General terms which set of Underlying Specific Provisions apply to the relevant Series of Securities and will complete the relevant Underlying Specific Provisions.

Issue Specific Terms and General Conditions, including the applicable Underlying Specific Provisions together constitute the "**Conditions**" of the relevant Series of Securities. Terms not otherwise defined in these General Conditions shall have the meaning given in the applicable Issue Specific Terms or, as the case may be, the applicable Final Terms.

The applicable Final Terms for each Series of Securities will specify whether the governing law of the relevant Series is English law ("**English Securities**") or German law ("**German Securities**"). Certain of the provisions of these General Conditions apply only to English Securities or, as the case may be, German Securities which are bearer notes pursuant to Section 793 of the German Civil Code (BGB), in each case, as set out in these General Conditions below.

German Securities issued by the Issuer will, save as set out below, be represented by a permanent global bearer note (the "Global Bearer Note") which is deposited with the applicable Clearing System. Each Global Bearer Note representing the Securities (or any nominal amount thereof) of a relevant Series will indicate the number of Securities as specified in the applicable Final

Terms and set out therein or incorporate by reference therein (subject to the law applicable in relation to the registration) the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions).

English Securities issued by the Issuer will, save as set out below, be represented by a registered global note (the "Global ICSD Registered Note") deposited with, and registered in the name of, a common depositary for Euroclear and Clearstream Luxembourg (the "ICSDs" and each an "ICSD"). Each Global ICSD Registered Note representing the Securities (or any nominal amount thereof) of a relevant Series will indicate the number of Securities as specified in the applicable Final Terms and set out therein or incorporate by reference therein (subject to the law applicable in relation to the registration) the applicable Issue Specific Terms, as replicated in the applicable Final Terms, and the General Conditions (including the applicable Underlying Specific Provisions).

German Securities and English Securities may, in addition, also be issued by the Issuer and registered with:

- (i) Euroclear Finland in the Euroclear Finland System ("Euroclear Finland Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with Finnish Regulations;
- (ii) Euroclear Sweden ("Euroclear Sweden Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with the SFIA Act (as defined in Section 3 of these General Conditions); and
- (iii) VPS ("VPS Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with the NFIA Act (as defined in Section 3 of these General Conditions),

in each case, as specified in the applicable Issue Specific Terms. "**Nordic Registered Securities**" means Euroclear Sweden Registered Securities, VPS Registered Securities and Euroclear Finland Registered Securities.

German Securities and English Securities may, in addition, also be issued by the Issuer and registered with Nederlands Centraal Instituut voor Giraal Effectenverkeer B.V. ("Euroclear Netherlands Registered Securities") and issued in uncertificated and dematerialized book-entry form in accordance with the Euroclear Netherlands Rules (as defined in Section 3 of these General Conditions).

German Securities and English Securities may, in addition, also be issued by the Issuer and inscribed in the books of Euroclear France ("Euroclear France Registered Securities") and in dematerialized bearer form in accordance with the French Monetary and Financial Code.

No Securities will be issued to Security Holders in definitive form.

The English Securities are constituted by, and have the benefit of, a deed of covenant, the date of which will be set out in Part B (general terms) of the applicable Issue Specific Terms (as amended and restated or supplemented from time to time, the "**Deed of Covenant**"). German

Securities which also constitute Nordic Registered Securities or Euroclear Netherlands Registered Securities and English Securities are issued pursuant to, and subject to the benefit of, a Programme Agreement, (as amended and restated or supplemented from time to time, the "**Programme Agreement**") or, as the case may be, an agency agreement (as amended and restated or supplemented from time to time, the "**Agency Agreement**"), in each case, as specified in Part B (general terms) of the applicable Issue Specific Terms.

In relation to German Securities which are specified in the applicable Issue Specific Terms to be listed and admitted to trading on an Italian regulated market or any Italian multilateral trading facility (the "Italian Listed Securities") (to the extent required by the rules of the relevant regulated market or multilateral trading facility), reference (if any) to "discretion" or "sole discretion" or "absolute discretion" shall be replaced by reference to "reasonable discretion as defined under § 315 or § 317 respectively of the German Civil Code (BGB)" and any determination by the Calculation Agent (or any other Agent(s)) shall be done with "reasonable discretion as defined under § 315 or § 317 respectively of the German Civil Code (BGB)".

# Section 1 (Security Right, Status, Guarantee, Definitions)

### (1) <u>Security Right</u>

Each security (each a "Security") of a series (each a "Series") of Securities identified by its WKN and/or ISIN (being the WKN and/or ISIN specified in the applicable Final Terms), entitles its holder (each a "Security Holder") to receive on the Settlement Date from the Issuer, in the manner prescribed by the Conditions, such amount as is specified in the relevant Issue Specific Terms (the "Settlement Amount") as follows:

- (a) where Settlement means "Cash", payment of the Settlement Amount to the relevant Security Holder; and/or
- (b) where Settlement means "Physical", delivery of the Physical Delivery Amount to the relevant Security Holder; and/or
- (c) where Settlement means either "Cash" or "Physical", payment of the Settlement Amount or delivery of the Physical Delivery Amount to the relevant Security Holder, in each case, subject to and in accordance with the Conditions.

If provided for in the applicable Issue Specific Terms, the Security Holder is also entitled to receive on the respective Coupon Payment Date(s) a Coupon Amount which will be determined pursuant to Section 4 of the General Conditions.

In relation to Italian Listed Securities the Settlement Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements, as determined by the Calculation Agent.

#### (2) Status of the Securities and the Guarantee

#### (a) Status of the Securities

The Securities of each Series constitute direct, unsecured, and unsubordinated obligations of the Issuer, which rank equally among themselves and with all other present and future unsecured and unsubordinated obligations of the Issuer, save for those obligations that may be preferred by provisions of law that are mandatory and of general application.

## (b) Status of Guarantee

The Goldman Sachs Group, Inc. (the "**Guarantor**") has assumed an unconditional and irrevocable guarantee (the "**Guarantee**") for the payment of the Settlement Amount and of any other amounts to be paid by the Issuer pursuant to the Conditions. The Guarantee constitutes a direct, unsubordinated obligation of the Guarantor.

For the avoidance of doubt, references in the Guarantee to any "redemption amount" shall include, for these purposes, the value in cash, as determined in its reasonable discretion by the Calculation Agent, of any Physical Delivery Amount deliverable in accordance with Section 1 of these General Conditions.

### (c) U.S. Special Resolution Regimes or Insolvency of the Guarantor

In the event the Issuer or the Guarantor becomes subject to a proceeding under the Federal Deposit Insurance Act or Title II of the Dodd Frank Wall Street Reform and Consumer Protection Act (together, "U.S. Special Resolution Regimes"), the transfer of the Securities and the related Guarantee (together, the "Relevant Agreements"), and the transfer of any interest and obligation in or under the Relevant Agreements, from the Issuer or the Guarantor, respectively, will be effective to the same extent as the transfer would be effective under such U.S. Special Resolution Regimes notwithstanding the jurisdiction in which any Security Holder is domiciled or located or the fact that the governing law of the Securities are the laws of a jurisdiction other than the laws of the United States or a state of the United States. In the event the Issuer or the Guarantor, or any of their affiliates, becomes subject to a proceeding under a U.S. Special Resolution Regimes, default rights against the Issuer or the Guarantor with respect to the Relevant Agreements are permitted to be exercised to no greater extent than such default rights could be exercised under such U.S. Special Resolution Regimes notwithstanding the jurisdiction in which any Security Holder is domiciled or located or the fact that the governing law of the Securities are the laws of a jurisdiction other than the laws of the United States or a state of the United States.

#### (3) *Currency Conversion and Rounding*

In relation to Cash Settlement:

If "Currency Conversion" is specified to apply pursuant to Part B (general terms) of the applicable Issue Specific Terms and an Exchange Rate is set out therein, the Settlement Amount will be converted from the Reference Currency into the Settlement Currency at the Exchange Rate. If "Currency Conversion" is specified to apply in Part B (general terms) of the applicable Issue Specific Terms, but no Exchange Rate is set out

therein, the Settlement Amount will be converted from the Reference Currency into the Settlement Currency by the Calculation Agent at an exchange rate of one unit of the Reference Currency to one unit of the Settlement Currency ("Quanto").

The Settlement Amount will be rounded to the Settlement Amount Rounding.

*In relation to Physical Settlement:* 

Where the Physical Delivery Amount comprises fractions of Physical Delivery Units, a Security Holder will receive the Physical Delivery Amount comprising the nearest number (rounded down) of Physical Delivery Units. Securities of any Series belonging to the same Security Holder shall, unless "Aggregation" is specified not to apply in the applicable Issue Specific Terms, be aggregated for the purposes of determining the relevant number of Physical Delivery Units to be delivered, provided that the aggregate number of Physical Delivery Units, in respect of the same Security Holder, will be rounded down to the nearest whole number. If specified in the applicable Issue Specific Terms a Security Holder will also receive an amount in cash (the "Fractional Cash Amount") (if any) in the Settlement Currency which, unless otherwise specified in the applicable Issue Specific Terms, shall be equal to the product of (i) the Fractional Entitlement and (ii) the relevant Reference Price. The Settlement Amount Rounding does not apply.

## (4) <u>Definitions</u>

"Calculation Amount" is set out in Part A (product specific terms) of the applicable Issue Specific Terms (if applicable).

"Calculation Date" is the date defined in the applicable Underlying Specific Provisions.

"Exchange Rate" is the exchange rate defined in Part B (general terms) of the applicable Issue Specific Terms, expressed in the Reference Currency for one unit of the Settlement Currency and which is published by the Exchange Rate Sponsor at the Relevant Exchange Date. If the conversion occurs at a time when an updated exchange rate is not yet published by the Exchange Rate Sponsor on the relevant date, the conversion will be carried out by the Calculation Agent based on the last exchange rate published by the Exchange Rate Sponsor. If the Exchange Rate Sponsor does not publish any exchange rate on the relevant date, the exchange rate shall correspond to the exchange rate published by another financial information service selected by the Calculation Agent. If the exchange rate should no longer be published in any of the above ways, the Calculation Agent has the right to determine, in its reasonable discretion, an exchange rate having regard to existing market conditions (including, but not limited to, the prevailing exchange rate).

"Exchange Rate Sponsor" is the entity whose details are specified in Part B (general terms) of the applicable Issue Specific Terms.

"Final Valuation Date" means (subject to adjustment (as a Reference Date) in accordance with the applicable Underlying Specific Provisions):

- if "European Exercise Style" is the applicable exercise style pursuant to Section 2 of the General Conditions, the Final Valuation Date as set out in Part B (general terms) of the applicable Issue Specific Terms. If the Final Valuation Date does not fall on a Calculation Date, the Final Valuation Date shall be, unless otherwise specified within Part B (general terms) of the applicable Issue Specific Terms, the next following Calculation Date.
- if "American Exercise Style" or "Bermudan Exercise Style" is the applicable exercise style pursuant to Section 2 of the General Conditions:
- (a) the Exercise Date (if the Underlying Price is customarily determined on a Calculation Date following the Exercise Time) or, if the Exercise Date is not a Calculation Date and unless otherwise specified within Part B (general terms) of the applicable Issue Specific Terms, the next following Calculation Date; or
- (b) unless otherwise specified within Part B (general terms) of the applicable Issue Specific Terms, the Calculation Date immediately following the Exercise Date (if the Underlying Price is customarily determined on a Calculation Date prior to the Exercise Time).

If, in the case of Securities of any Series with a fixed term, the Exercise Date falls on the last day of the Exercise Period, the date on which the Exercise Period ends shall be the Final Valuation Date, or, if this date is not a Calculation Date, then the Final Valuation Date shall be the next following Calculation Date.

"**Fractional Entitlement**" means, in respect of a Security, the fraction of the Physical Delivery Unit existing prior to the rounding down to the nearest whole number.

"Initial Reference Price" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms and will be determined on the Initial Valuation Date (if not otherwise specified in the applicable Issue Specific Terms).

"Initial Valuation Date" means, subject to adjustment (as a Reference Date) in accordance with the applicable Underlying Specific Provisions, the Initial Valuation Date as set out in Part B (general terms) of the applicable Issue Specific Terms. If the Initial Valuation Date does not fall on a Calculation Date, the Initial Valuation Date shall be the next following Calculation Date.

"Multiplier" is set out in Part A (product specific terms) of the applicable Issue Specific Terms (if applicable).

"Nominal" is set out in Part A (product specific terms) of the applicable Issue Specific Terms (if applicable).

"Physical Delivery Amount" is specified in Part B (general terms) of the applicable Issue Specific Terms, or if no such Physical Delivery Amount is so specified, Physical Delivery Amount shall mean the number of Physical Delivery Units set out in the Issue Specific Terms.

"Physical Delivery Unit" means the number of units of the relevant asset as set out in Part B (general terms) of the applicable Issue Specific Terms.

"Reference Currency" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"Reference Price" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms and will be determined on the basis of the Underlying Price at the Final Valuation Date (if not otherwise provided for in the applicable Issue Specific Terms).

"Relevant Exchange Date" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"**Settlement Amount Rounding**" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"**Settlement Currency**" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"**Settlement Date**" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"Valuation Date" is, subject to adjustment (as a Reference Date) in accordance with the applicable Underlying Specific Provisions, the date(s) set out in Part B (general terms) of the applicable Issue Specific Terms.

# Section 2 (Exercise)

#### (1) General

The obligations in relation to the Settlement Amount described in Section 1 (1) of the General Conditions fall due on the Settlement Date when the Security is duly exercised.

- (2) Exercise of Securities by the Security Holder
- (a) Delivery of an Exercise Notice Securities other than Nordic Registered Securities

Each Security, unless previously redeemed or purchased and cancelled and subject as provided in the Conditions, is exercisable on any Business Day during the Exercise Period (in the case of Securities with American Exercise Style) or on any Bermuda Exercise Date (in the case of Securities with Bermudan Exercise Style) by delivery of an Exercise Notice at or before the Exercise Time to the Principal Programme Agent. An Exercise Notice delivered after the Exercise Time shall become effective on the next following Business Day (in the case of Securities with American Exercise Style) or the next following Bermuda Exercise Date (if any) (in the case of Securities with Bermudan Exercise Style). The valid exercise by the Security Holder is subject to the condition

subsequent of a Knock-Out Event pursuant to Section 6 of the General Conditions occurring on or before the determination of the relevant Reference Price on the Exercise Date, i.e. if a Knock-Out Event occurs after the exercise of the Securities by the Security Holder pursuant to this provision this will result in the exercise subsequently becoming invalid and the provisions of Section 6 of the General Conditions applying instead.

In the case of Global ICSD Registered Notes the Exercise Notice has to be delivered to (i) the ICSDs by the ICSD Prescribed Time, (ii) the Principal Programme Agent by not later than 10.00 a.m. (Frankfurt time) and (iii) if a Local Exercise Time is specified in the applicable Issue Specific Terms, the Calculation Agent by not later than the Local Exercise Time.

This Section 2(2)(a) of the General Conditions is not applicable to Nordic Registered Securities.

#### (b) Automatic Exercise

If "Automatic Exercise" is specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the Securities will, subject to the provisions of this Section 2 (2)(b) of the General Conditions be exercised automatically on the Final Valuation Date, and a Security Holder will not be required to complete an Exercise Notice. Such Automatic Exercise will only occur if the Settlement Amount is equal to an amount greater than zero. For the purposes of Nordic Registered Securities or Euroclear Netherlands Registered Securities, (i) Euroclear Sweden Registered Securities shall be deemed to have been exercised by 10.00 a.m. (Stockholm time) on the Final Valuation Date, (ii) VPS Registered Securities shall be deemed to have been exercised by 11.00 p.m. (Oslo time) on the Final Valuation Date, (iii) Euroclear Finland Registered Securities shall be deemed to have been exercised by 10.00 a.m. (Helsinki time) on the Final Valuation Date, (iv) Euroclear Netherlands Registered Securities shall be deemed to have been exercised by 10.00 a.m. (Amsterdam time) on the Final Valuation Date, and (v) Euroclear France Registered Securities shall be deemed to have been exercised by 10.00 a.m. (Paris time) on the Final Valuation Date.

However, if Automatic Exercise has not been specified to apply in Part B (general terms) of the applicable Issue Specific Terms, any exercisable Security not exercised by the Final Valuation Date shall expire worthless on such day and the Issuer shall have no further obligations in respect of any such Security. A declaration that neither the Security Holder nor the beneficial owner of the Securities is a U.S. person is deemed issued automatically.

(c) Exercise Notice – Securities other than Nordic Registered Securities and Euroclear France Registered Securities

"Exercise Notice" is a notice of the Security Holder which declares the exercise of one or more Securities and which contains the following information:

(i) the name, address, telephone and facsimile details of the Security Holder,

- (ii) the designation and the number of the Securities which are the subject of the applicable Exercise Notice,
- (iii) a suitable bank and/or securities account, to which any Settlement Amount is to be credited or delivered, in the case of Cash Settlement, in the Settlement Currency,
- (iv) a declaration, that neither the Security Holder nor the beneficial owner of the Securities is a U.S. person or is located within the United States (within the meaning of Regulation S),
- (v) an irrevocable undertaking by the Security Holder to pay any taxes and capital, stamp, issue, registration and transfer taxes and duties ("Taxes") arising on the exercise of the relevant Securities and an instruction from the Security Holder to the relevant Clearing System to deduct an amount in respect thereof from any Settlement Amount due to such Security Holder or otherwise to debit (on or at any time after the Exercise Date) a specified account of the Security Holder at the relevant Clearing System with an amount or amounts in respect thereof, and
- (vi) authorisation for the production of such declaration as described in Section 2(2)(c)(iv) in applicable administrative or legal proceedings.

The terms used in this sub-paragraph have the meaning ascribed to them in Regulation S promulgated under the United States Securities Act of 1933, as amended from time to time.

The Securities must, in the case of German Securities, have been received by the Principal Programme Agent through credit of the Securities to the account of the Principal Programme Agent at the Clearing System and, in the case of Securities of any Series represented by a Global ICSD Registered Note, through credit of the relevant Securities to the account of the Principal Programme Agent or Fiscal Agent at the ICSDs.

This Section 2 (2)(c) of the General Conditions is not applicable to Nordic Registered Securities and Euroclear France Registered Securities.

(d) Exercise Notice – Euroclear France Registered Securities

"Exercise Notice" is a notice of the Security Holder which declares the exercise of one or more Securities and which contains the following information:

- (i) the name, address, telephone and facsimile details of the Security Holder and the Euroclear France Accountholder through which the Securities are held,
- (ii) the designation and the number of the Securities which are the subject of the applicable Exercise Notice,
- (iii) a suitable bank and/or securities account, to which any Settlement Amount is to be credited or delivered, in the case of Cash Settlement, in the Settlement Currency,

- (iv) an instruction and authorisation to the French Paying Agent to instruct the relevant Euroclear France Accountholder to debit on or prior the Settlement Date the Security Holder's account with the Securities to which the Exercise Notice relates;
- (v) a declaration, that neither the Security Holder nor the beneficial owner of the Securities is a U.S. person or is located within the United States (within the meaning of Regulation S),
- (vi) an irrevocable undertaking by the Security Holder to pay any taxes and capital, stamp, issue, registration and transfer taxes and duties ("**Taxes**") arising on the exercise of the relevant Securities and an instruction from the Security Holder to the relevant Clearing System to deduct an amount in respect thereof from any Settlement Amount due to such Security Holder or otherwise to debit (on or at any time after the Exercise Date) a specified account of the Security Holder at the relevant Clearing System with an amount or amounts in respect thereof, and
- (vii) authorisation for the production of such declaration as described in Section 2(2)(d)(v) in applicable administrative or legal proceedings.

The terms used in this sub-paragraph have the meaning ascribed to them in Regulation S promulgated under the United States Securities Act of 1933, as amended from time to time.

This Section 2(2)(d) of the General Conditions is not applicable to Securities other than Euroclear France Registered Securities.

#### (e) Minimum or Maximum Exercise Amount

Where a "Minimum Exercise Amount" has been specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the number of Securities exercised on any Exercise Date by a Security Holder, as determined by the Calculation Agent, must not be less than such Minimum Exercise Amount or, if the number of Securities exercised on the relevant Exercise Date is a number in excess of the Minimum Exercise Amount and an "Integral Exercise Amount" has been specified in Part B (general terms) of the applicable Issue Specific Terms, the number of Securities exercised on any Exercise Date must be, in all cases, an integral multiple of the Integral Exercise Amount. Any purported exercise of Securities in breach of this provision shall be void and of no effect.

Where a "Maximum Exercise Amount" has been specified in Part B (general terms) of the applicable Issue Specific Terms, if the Calculation Agent determines that the number of Securities being exercised on any Exercise Date by any Security Holder or any number of Security Holders (whether or not acting in concert) exceeds such Maximum Exercise Amount (a number of Securities equal to the Maximum Exercise Amount hereinafter referred to as the "Quota"), the Issuer may deem the Exercise Date for the first Quota, selected on the basis of the chronological order in which the relevant Exercise Notices have been delivered, to be such day and the Exercise Date for each additional Quota (and any remaining Securities thereof), selected in the same way as above, to be each of the

succeeding Exercise Dates until all such relevant Securities have been duly exercised on an Exercise Date, provided, however, that for any such relevant Security for which the relevant Exercise Date would thereby fall after the final Exercise Date, such final Exercise Date shall be the Exercise Date of the relevant Security. In any case where more than a Quota is exercised on the same day by Security Holder(s), the determination of the chronological order of settlement in respect of such Securities shall be at the reasonable discretion of the Issuer.

This Section 2 (2)(e) of the General Conditions is not applicable to Nordic Registered Securities.

# (f) Renouncement Notice for Italian Listed Securities

In the case of Italian Listed Securities which will be listed and admitted to trading on an Italian regulated market or any Italian multilateral trading facility – including the SeDeX market managed and organised by Borsa Italiana S.p.A. (the "Italian Stock Exchange") - the Securities will be exercised automatically on the Exercise Date. However prior to the Renouncement Notice cut-off time specified in the Issue Specific Terms (the "Renouncement Notice Cut-Off Time"), each Security Holder may renounce Automatic Exercise of the relevant Italian Listed Security(ies) by the delivery or sending by fax of a duly completed renouncement notice substantially in the form set out in Annex to the General Conditions - Standard Form of Renouncement Notice (the "Renouncement Notice") - in accordance with the rules of the Italian Stock Exchange or any other Italian regulated market or multilateral trading facility so requiring (applicable from time to time), to the relevant Clearing System, the Calculation Agent, the Principal Programme Agent and the Agent in Italy (if any), with a copy to the Issuer and any other relevant Agent(s). Once delivered a Renouncement Notice shall be irrevocable and may not be withdrawn. If a duly completed Renouncement Notice is validly delivered prior to the Renouncement Notice Cut-Off Time, the relevant Security Holder will not be entitled to receive any amounts payable by the Issuer in respect of relevant Italian Listed Securities and the Issuer shall have no further liability in respect of such Italian Listed Securities. After delivery of a Renouncement Notice, the relevant Security Holder may not transfer the relevant Italian Listed Securities which are the subject of such Renouncement Notice. Any determination as to whether a Renouncement Notice is duly completed and in proper form shall be made by the relevant Clearing System (in consultation with the Issuer, the Principal Programme Agent and the Agent in Italy (if any)), in good faith and in a reasonable manner, and shall be conclusive and binding on the Issuer, the Agents and the relevant Security Holder. Subject as set out below, any Renouncement Notice so determined to be incomplete or not in proper form shall be null and void. If such Renouncement Notice is subsequently corrected to the satisfaction of the relevant Clearing System (in consultation with the Issuer, the Principal Programme Agent and the Agent in Italy (if any)), it shall be deemed to be a new Renouncement Notice submitted at the time such correction was delivered to the Agent in Italy. In the event that a Security Holder does not execute, where applicable, a duly completed Renouncement Notice in accordance with the provisions hereof, the relevant Italian Listed Securities shall be exercised automatically and shall be repaid in the manner set out in the relevant Issue Specific Terms and Final Terms, and the Issuer's obligations in respect of such Italian Listed Securities shall be discharged and no further liability in respect thereof shall attach to the Issuer.

# (3) <u>Verification of the Security Holder – English Securities represented by a Global ICSD</u> Registered Note only

Upon receipt of an Exercise Notice in respect of any English Securities represented by a Global ICSD Registered Notes, the Principal Programme Agent shall request each ICSD to confirm in writing to the Principal Programme Agent, the Calculation Agent and the Issuer that, according to the books of the relevant ICSD, the person exercising the relevant Securities referred to in the Exercise Notice is the holder thereof. If the number of Securities specified in such Exercise Notice exceeds the number of Securities held in the specified account of the person exercising the relevant Securities, the Exercise Notice shall become null and void, and the Principal Programme Agent shall so notify the Issuer and the Calculation Agent. If the number of Securities specified in such Exercise Notice does not exceed the number of Securities held in such specified account then, on or prior to the Settlement Date, the ICSDs will debit such account with the Securities being exercised.

### (4) <u>Definitions</u>

"Bermuda Exercise Dates" are set out in Part B (general terms) of the Issue Specific Terms.

"Business Day" is set out in Part B (general terms) of the Issue Specific Terms.

"Exercise Date" means, subject to (i) an extraordinary termination pursuant to the Underlying Specific Provisions or Section 18 of the General Conditions (in the case of German Securities), (ii) an ordinary termination pursuant to Section 12 of the General Conditions (to the extent the applicable Issue Specific Provisions provide an ordinary termination right of the Issuer) or (iii) the occurrence of a Knock-Out Event (to the extent the Securities are structured with a Knock-Out Barrier):

- if "European Exercise Style" has been specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the Final Valuation Date;
- if "American Exercise Style" has been specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the Business Day during the Exercise Period on which the Securities are duly exercised; and
- if "Bermudan Exercise Style" has been specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the Bermuda Exercise Date on which the Securities are duly exercised, or, if such day is not a Business Day, the next following Business Day.

"Exercise Period" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"Exercise Style" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"Exercise Time" is the time set out in Part B (general terms) of the applicable Issue Specific Terms.

"ICSD Prescribed Time" is the time set out in Part B (general terms) of the applicable Issue Specific Terms.

"Local Exercise Time" is the time set out in Part B (general terms) of the applicable Issue Specific Terms.

# Section 3 (Settlement)

#### (1) <u>Settlement - Securities other than Nordic Registered Securities and Euroclear France</u> Registered Securities

Any cash amounts payable by the Issuer shall be transferred to the relevant Clearing System for distribution to the Security Holder. The Issuer will be discharged of its payment and/or delivery obligations by payment and/or delivery to, or to the order of, the relevant Clearing System (or a depositary or nominee thereof) in respect of the amount so paid or delivered. In relation to Italian Listed Securities listed on SeDeX market of the Italian Stock Exchange or on any other regulated market or multilateral trading facility so requiring (as specified in the Issue Specific Terms), the Security Holders may hold such Securities via an account with, or through an account with a participant of, Monte Titoli S.p.A. Monte Titoli S.p.A. which will, in turn, have an account ("bridge") with one or more Clearing Systems (as the case may be).

Where Settlement means Cash Settlement, the Issuer shall on and for value on the Settlement Date, transfer an amount equal to the aggregate Settlement Amount of the duly exercised Securities to the account of the Principal Programme Agent, whereupon the Principal Programme Agent shall transfer such amount to the account at the relevant Clearing System specified in the relevant Exercise Notice for value on the Settlement Date.

If, however, Settlement means Physical Settlement then, on delivery of an Exercise Notice in respect of any Security and the payment of any applicable Taxes as aforesaid from the relevant account of the Security Holder to the relevant account of the Principal Programme Agent (in favour of the Issuer), the Issuer shall, on the relevant Settlement Date, transfer or procure the transfer of the Physical Delivery Amount in respect of the relevant Securities for credit to the account specified in the relevant Exercise Notice.

Any determination as to whether an Exercise Notice is duly completed and in proper form shall be made by (i) the relevant Clearing System, in consultation with the Principal Programme Agent or (ii) if the relevant Clearing System does not review the respective Exercise Notice, the Principal Programme Agent in its reasonable discretion and shall be conclusive and binding on the Issuer, the Agents and the relevant Security Holder. Any Exercise Notice so determined to be incomplete or not in proper form or which is not copied to the Principal Programme Agent immediately after being sent to the relevant Clearing System shall be null and void. If such Exercise Notice is subsequently corrected to the satisfaction of the relevant Clearing System it shall be deemed to be a new Exercise Notice submitted at the time such correction is delivered to the relevant Clearing System.

Delivery of an Exercise Notice shall constitute an irrevocable election and undertaking by the relevant Security Holder to exercise the Securities specified therein. After the delivery of an Exercise Notice (other than an Exercise Notice which shall become void), the holder of the Securities specified in such Exercise Notice may not transfer such Securities prior to the Settlement Date. This obligation under the General Conditions does not affect the free transferability of the Securities which is legally granted.

#### (2) <u>Settlement - Nordic Registered Securities</u>

#### (a) Settlement - Euroclear Sweden Registered Instruments

No later than the sixth Business Day immediately preceding the Settlement Date of any Series of Euroclear Sweden Registered Securities, and in accordance with the Programme Agreement or, as the case may be, the Agency Agreement, the Issuer shall transfer an amount equal to the aggregate Settlement Amount of such Series to the Swedish Custody Cash Account whereupon the Swedish Paying Agent will transfer such aggregate Settlement Amount from the Swedish Custody Cash Account to the Swedish Cash Transfer Account. Subject to foregoing, Euroclear Sweden will debit the Swedish Cash Transfer Account for value on the Settlement Date and forward the Settlement Amount to the Security Holders in accordance with the Programme Agreement or, as the case may be, the Agency Agreement.

#### (b) Settlement - VPS Registered Instruments

No later than the first Business Day immediately preceding the Settlement Date of any Series of VPS Registered Securities in accordance with the Programme Agreement or, as the case may be, the Agency Agreement, the Issuer shall transfer an amount in Norwegian Krone equal to the aggregate Settlement Amount of such Series to the Norwegian Custody Cash Account whereupon the Norwegian Paying Agent will transfer such Settlement Amount from the Norwegian Custody Cash Account to the Norwegian Cash Transfer Account to which VPS has access in connection with payments to Security Holders. Subject to the foregoing, VPS will debit the Norwegian Cash Transfer Account for value on the Settlement Date and forward the Settlement Amount to the Security Holders in accordance with the Programme Agreement or, as the case may be, the Agency Agreement.

#### (c) Settlement - Euroclear Finland Registered Instruments

The settlement of Euroclear Finland Registered Securities shall be carried out in accordance with the Finnish Regulations. Pursuant to the Finnish Regulations, the last trading day of a Finnish registered warrant and a certificate with comparable terms is five Business Days before the Expiration Date of that security (on payment of net value of the security) in the relevant Euroclear Finland System in which the Euroclear Finland Registered Securities are registered (the "OM system"). Euroclear Finland provides the Issuer or the Finnish Paying Agent with a calculation of the balances needed for each relevant account operator and agent of an account operator accepted by Euroclear Finland as a member of the OM system in accordance with the Finnish Regulations (the "Account Operator"). The Issuer shall transfer an amount in euros equal to the aggregate Settlement Amount to the Finnish Custody Cash Account one Business Day prior to the Settlement Date so that the relevant Settlement Amount can be transferred to the Account Operators. The Finnish Paying Agent shall transfer the payments to the Account Operators operating on behalf of the Euroclear Finland Security Holders on the Business Day prior to the Settlement Date by 1.00 p.m. (Helsinki time). The Account Operators shall then forward the payments to the respective Euroclear Finland Security Holders.

In respect of Finnish registered warrants and certificates with comparable terms, the Issuer shall deliver a confirmation of the Settlement Amount to the Finnish Paying Agent to be forwarded to Euroclear Finland five Business Days prior to the Settlement Date. Euroclear Finland provides the Issuer or Finnish Paying Agent with a calculation of the balances needed for each relevant Account Operator. The Issuer shall transfer an amount in euros equal to the aggregate Settlement Amount to the Finnish Custody Cash Account one Business Day prior to the Settlement Date. The Finnish Paying Agent shall transfer the payments to the Account Operators operating on behalf of the Euroclear Finland Security Holders on the Settlement Date by 10.00 a.m. (Helsinki time). The Account Operators shall then forward the payments to the respective Euroclear Finland Security Holders.

All payment actions relating to Settlement Amounts are subject to detailed deadlines in accordance with the Finnish Regulations.

The description in this Section 3(2)(c) of the General Conditions as to the payment procedures and other actions of Euroclear Finland and the Account Operator is based solely on the Issuer's understanding of the Finnish Regulations. Neither the Issuer nor (if applicable) the Guarantor makes any representation or warranty that such information is accurate or, in any event, that Euroclear Finland (or its agents or operators) will make such payments or undertake such actions or duties in accordance with such description. Accordingly, notwithstanding anything else herein, none of the Issuer, the Guarantor (if applicable) or any Agent has any responsibility for the performance by Euroclear Finland (or its agents or operators) of their respective payment, delivery, Euroclear Finland Security Holder identification, or other obligations in respect of the Securities as described herein and/or under the rules and procedures governing their operations.

#### (3) Settlement – Euroclear France Registered Securities

Any cash amounts payable by the Issuer shall be made by transfer to the account denominated in the relevant currency of the relevant Euroclear France Accountholders for the benefit of the Euroclear France Security Holders. The Issuer will be discharged of its payment and/or delivery obligations by payment and/or delivery to, or to the order of, the relevant Euroclear France Accountholders in respect of the amount so paid or delivered.

Where Settlement means Cash Settlement, the Issuer shall on and for value on the Settlement Date, transfer an amount equal to the aggregate Settlement Amount of the duly exercised Securities to the account of the French Paying Agent, whereupon the French Paying Agent shall transfer such amount to the relevant Security Holder's account or Euroclear France Accountholder's account specified in the relevant Exercise Notice for value on the Settlement Date.

If, however, Settlement means Physical Settlement then, on delivery of an Exercise Notice in respect of any Security and the payment of any applicable as aforesaid from the relevant account of the Security Holder to the relevant account of the French Paying Agent (in favour of the Issuer), the Issuer shall, on the relevant Settlement Date, transfer or procure the transfer of the Physical Delivery Amount in respect of the relevant Securities for credit to the Security Holder's account or Euroclear France Accountholder's account specified in the relevant Exercise Notice.

Any determination as to whether an Exercise Notice is duly completed and in proper form shall be made by the French Paying Agent in its reasonable discretion and shall be conclusive and binding on the Issuer, the Agents and the relevant Security Holder. Any Exercise Notice so determined to be incomplete or not in proper form shall be null and void. If such Exercise Notice is subsequently corrected to the satisfaction of the French Paying Agent it shall be deemed to be a new Exercise Notice submitted at the time such correction is delivered to the French Paying Agent.

Delivery of an Exercise Notice shall constitute an irrevocable election and undertaking by the relevant Security Holder to exercise the Securities specified therein. After the delivery of an Exercise Notice (other than an Exercise Notice which shall become void), the holder of the Securities specified in such Exercise Notice may not transfer such Securities prior to the Settlement Date. This obligation under the General Conditions does not affect the free transferability of the Securities which is legally granted.

#### (4) Settlement Currency Conversion

Any cash amount payable by the Issuer shall be paid in the Settlement Currency. If payment of any amount to a Security Holder, according to the rules of the relevant Clearing System, cannot be made in the Settlement Currency, such payment shall be made in the currency principally used by the relevant Clearing System for payments to holders holding accounts with such Clearing System, following a conversion of the relevant amount from the Settlement Currency.

# (5) <u>Entitlement to payments in respect of Global ICSD Registered Notes, Nordic Registered Securities, Euroclear Netherlands Registered Securities and Euroclear France Registered Securities</u>

#### (a) Global ICSD Registered Notes

Payments in respect of Global ICSD Registered Notes shall be made to the persons on the register of Security Holders of the relevant Series of Securities on the relevant Record Date, for which purposes the "Record Date" shall be the close of business on the Clearing System Business Day before the due date for payment, where the "Clearing System Business Day" means a day on which the relevant clearing system is open for business.

#### (b) Euroclear Sweden Registered Securities

Payments of principal and/or interest in respect of the Euroclear Sweden Registered Securities shall be made to the Euroclear Sweden Security Holders registered as such on the fourth business day (as defined by the then applicable Euroclear Sweden Rules) before the due date for such payment, or such other business day falling closer to the due date as then may be stipulated in the Euroclear Sweden Rules and will be made in accordance with the Euroclear Sweden Rules. Such day shall be the "Record Date" in respect of the Euroclear Sweden Registered Securities in accordance with the Euroclear Sweden Rules.

#### (c) VPS Registered Securities

Payments of principal and/or interest in respect of the VPS Registered Securities shall be made to the VPS Security Holders registered as such on the fourteenth calendar day before the due date for such payment, or such other business day falling closer to the due date as then may be stipulated in the VPS Rules and will be made in accordance with the VPS Rules. Such day shall be the "Record Date" in respect of the VPS Registered Securities in accordance with the VPS Rules.

#### (d) Euroclear Finland Registered Securities

Payments of principal and/or interest in respect of the Euroclear Finland Registered Securities shall be made to the Euroclear Finland Security Holders on the basis of information recorded in the relevant Euroclear Finland Security Holder's book-entry securities account on the first Business Day before the due date for such payment. Such day shall be the "Record Date" in respect of the Euroclear Finland Registered Securities in accordance with the Euroclear Finland Rules. Euroclear Finland Security Holders will not be entitled to any interest or other compensation for any delay after the due date in receiving the amount due as a result of the due date for payment not being a Payment Date.

#### (e) Euroclear Netherlands Registered Securities

Payments of principal and/or interest in respect of the Euroclear Netherlands Registered Securities shall be made to the Euroclear Netherlands Security Holders registered as such

on the business day (as defined by the then applicable Euroclear Netherlands Rules) before the due date for such payment, or such other business day falling closer to the due date as then may be stipulated in the Euroclear Netherlands Rules and will be made in accordance with the Euroclear Netherlands Rules. Such day shall be the "Record Date" in respect of the Euroclear Netherlands Registered Securities in accordance with the Euroclear Netherlands Rules.

#### (f) Euroclear France Registered Securities

Payments of principal and/or interest in respect of the Euroclear France Registered Securities shall be made to the Euroclear France Security Holders registered as such on the business day (as defined by the then applicable Euroclear France Rules) before the due date for such payment, or such other business day falling closer to the due date as then may be stipulated in the Euroclear France Rules and will be made in accordance with the Euroclear France Rules. Such day shall be the "Record Date" in respect of the Euroclear France Registered Securities in accordance with the Euroclear France Rules.

#### (6) <u>Payment Date</u>

If any date for payment of any amount by the Issuer in respect of any Security is not a Payment Date, the Security Holder thereof shall not be entitled to payment until the next following Payment Date and shall not be entitled to any interest or other payment in respect of such delay.

As used herein, a "Payment Date" means a day which is:

- (i) a day on which each Clearing System is open for business; and
- (ii) either (1) in relation to any sum payable in a currency other than euro, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of the country of such currency or (2) in relation to any sum payable in euro, a day that the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System, or any successor thereto, is open; and in addition
- (iii) (a) in the case of Euroclear Sweden Registered Securities, a day (other than a Saturday or Sunday) on which banks in Sweden are open for business, or (b) in the case of VPS Registered Securities, a day (other than a Saturday or Sunday) on which banks in Norway are open for business, or (c) in the case of Euroclear Finland Registered Securities, a day on which Euroclear Finland and the Euroclear Finland System (in which the Euroclear Finland Registered Securities are registered) are open for business in accordance with the Euroclear Finland Rules.

#### (7) <u>Deliveries</u>

Any deliveries of any Physical Delivery Amount due under any Security shall be made at the risk of the relevant Security Holder and shall be transferred to the relevant Clearing System for delivery to the relevant Security Holder, provided that where the Calculation Agent determines in its reasonable discretion that the delivery by the Issuer is fully or partly impractical, illegal or unduly onerous to the Issuer, then the Calculation Agent shall have the option to determine that the Issuer will make the delivery of any Physical Delivery Amount in such other commercially reasonable manner as the Calculation Agent may determine to be appropriate for such delivery and shall notify the Security Holders in accordance with Section 17 of the General Conditions. Any Physical Delivery Amount to be delivered shall be evidenced in such manner as the Issuer determines to be customary for the relevant Physical Delivery Amount. The Issuer shall be under no obligation to register or procure the registration of any Security Holder or any other person as the registered holder in respect of the amount to be delivered in any register of holders, including, but not limited to, a register of members of a share company.

This Section 3 (7) of the General Conditions is not applicable to Nordic Registered Securities.

#### (8) <u>Settlement Disruption</u>

If and to the extent that any delivery of any Physical Delivery Amount becomes due under a Security and (i) if the Settlement Date is not a Payment Date and/or (ii) prior to such delivery of any Physical Delivery Amount an event beyond the control of the Issuer occurs as a result of which the Issuer cannot make such delivery in accordance with these General Conditions at the relevant time for such delivery (a "Settlement Disruption Event"), then the Settlement Date for such delivery of the relevant Physical Delivery Amount shall be postponed to the first following Payment Date on which no such event is subsisting.

For so long as the Settlement Disruption Event is subsisting, then in lieu of the affected delivery of the relevant Physical Delivery Amount and notwithstanding any other provision hereof, the Issuer may elect in its reasonable discretion to satisfy this obligation in respect of the relevant Security by payment to the relevant Security Holder of the Disruption Settlement Amount on the fifth Payment Date following the date that notice of such election is given to the Security Holders in accordance with Section 17 of the General Conditions. Payment of the Disruption Settlement Amount will be made in such manner as will be notified in accordance with Section 17 of the General Conditions. The Calculation Agent shall give notice as soon as practicable in accordance with Section 17 that a Settlement Disruption Event has occurred.

No Security Holder or any other person shall be entitled to any payment in respect of a Security as a result of any delay in a delivery of any Physical Delivery Amount due to the occurrence of a Settlement Disruption Event, and no liability in respect thereof shall attach to the Issuer, the Calculation Agent and/or the Guarantor.

This Section 3 (8) of the General Conditions is not applicable to Nordic Registered Securities.

#### (9) <u>Consequences of an Index Cessation/Benchmark Event or Administrator/Benchmark</u> Event

- (i) Notwithstanding anything else in the General Conditions, if the Calculation Agent determines that an Index Cessation/Benchmark Event has occurred or is existing on any day in respect of any Securities, then (subject to the final paragraph of this paragraph (9)(i)) the Calculation Agent shall (or, in the case of a Non-Representativeness Event or a Methodology Change Event, may) determine the Reference Rate for the relevant period (as applicable) as follows (such that, in respect of any such period, the Reference Rate shall be determined by the first of (A) or (B) below (applied sequentially) which the Calculation Agent determines in its reasonable discretion by weighing up the interests of the Security Holders and the interests of the Issueris able to be utilised in order to determine the Reference Rate for such period in a manner that to the greatest possible extent upholds the economic character of the Securities, as applicable):
  - (A) the Reference Rate shall be determined by reference to the rate which the Calculation Agent determines in its reasonable discretion has replaced the relevant Reference Rate in customary market usage in the international debt capital markets for the purposes of determining rates of interest in respect of bonds denominated in the Settlement Currency or Reference Currency or Base Currency (as applicable) and of a comparable duration to the relevant period, or, if the Calculation Agent determines that there is no such rate, such other rate as the Calculation Agent determines in its reasonable discretion is most comparable to the relevant Reference Rate;
  - (B) the Reference Rate shall be the rate determined in respect of the immediately preceding period, provided that if no Reference Rate has been determined in respect of any such preceding period (or there is no such preceding period) the Reference Rate shall be the rate as determined by the Calculation Agent in its reasonable discretion, provided that, in the case of each of paragraph (A) and (B) (excluding the proviso within paragraph (B)), the application of the provisions of such paragraph (as applicable) is and would not be unlawful at any time under any applicable law or regulation and would not contravene any applicable licensing requirements to determine the Reference Rate in accordance with the terms of such provisions.

The Calculation Agent determines the Reference Rate in accordance with (A) or (B) above it may make such adjustment(s) that it determines in its reasonable discretion to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Securities to

account for such change to the method of determination of the Reference Rate including (but not limited to) any such adjustment(s) that the Calculation Agent determines in its reasonable discretion are required in order to reduce or eliminate, to the extent reasonable practicable, any change in the economic value of the Securities from such change to the method of determination of the Reference Rate.

If the Calculation Agent determines in its reasonable discretion that the application of (A) or (B) above would not achieve a commercially reasonable result, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Security Holders of the General Conditions designating the early payment date (the "Early Payment Date"). In the case of an early redemption the Issuer will cause to be paid to each Security Holder in respect of each Security held by it an amount equal to the Termination Amount (as defined in the applicable Underlying Specific Provisions). Payment of the Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 of the General Conditions.

(ii) If the Calculation Agent determines that an Administrator/Benchmark Event and its related Administrator/Benchmark Event Date have occurred or is existing on any day in respect of any Securities, the Calculation Agent may determine that the Securities shall be early redeemed. The Issuer shall give notice to the Security Holders in accordance with Section 17 of the General Conditions designating the early payment date (the "Early Payment Date"). In the case of an early redemption the Issuer will cause to be paid to each Security Holder in respect of each Security held by it an amount equal to the Termination Amount (as defined in the applicable Underlying Specific Provisions). Payment of the Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 of the General Conditions.

#### (10) Taxation, other laws and regulation

All payments and/or deliveries will be subject in all cases to (a) any fiscal or other laws and regulations applicable thereto in the place of payment and/or delivery (including, where applicable, laws requiring the deduction or withholding for, or on account of, any tax, duty or other charge whatsoever) and (b) any taxes, including any withholding or deduction required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986 (the "Code") or otherwise imposed pursuant to Sections 1471 through 1474 of the Code and any regulations or agreements thereunder or official interpretations thereof ("FATCA") or any law implementing an intergovernmental approach to FATCA.

#### (11) Disclaimer as to Clearing Systems and their agents and operators

Any description in these General Conditions as to payments being made or any other actions or duties being undertaken by any Clearing System (or its agents or operators) is based solely on the Issuer's understanding of the relevant rules and/or operations of such

Clearing System (and its agents and operators). Neither the Issuer nor (if applicable) the Guarantor makes any representation or warranty that such information is accurate or, in any event, that the relevant Clearing System (or its agents or operators) will make such payments or undertake such actions or duties in accordance with such description. Accordingly, notwithstanding anything else herein, none of the Issuer, the Principal Programme Agent, the Calculation Agent, or, if applicable, the Guarantor, the Norwegian Paying Agent, the Swedish Paying Agent, the Finnish Paying Agent or the Agents has any responsibility for the performance by any Clearing System (or its agents or operators) of their respective payment, delivery, Security Holder identification, or other obligations in respect of the Securities as described herein and/or under the rules and procedures governing their operations.

#### (12) <u>Definitions</u>

"Administrator/Benchmark Event" means, in respect of any Securities and a Relevant Benchmark, the occurrence or existence, as determined by the Calculation Agent, of any of the following events in respect of such Relevant Benchmark:

- (a) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of a Relevant Benchmark or the administrator or sponsor of a Relevant Benchmark has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, or any prohibition by a relevant competent authority or other relevant official body, in each case with the effect that the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity is not, or will not be, permitted under any applicable law or regulation to use the Relevant Benchmark to perform its or their respective obligations under the Securities; or
  - (b) any material change to the methodology or formula for the Relevant Benchmark or any other means of calculating the Relevant Benchmark, as determined by the Calculation Agent ("Material Methodology Change Event");

"Administrator/Benchmark Event Date" means, in respect of a Relevant Benchmark, the date determined by the Calculation Agent to be:

- (a) in the case of paragraph (a) of the definition of "Administrator/Benchmark Event", the date from which the Relevant Benchmark may no longer be used under any applicable law or regulation by Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity to perform its or their respective obligations under the Securities; or
- (b) in the case of paragraph (b) of the definition of "Administrator/Benchmark Event", the date on which the change to the methodology or formula for the Relevant Benchmark becomes effective,

or, in each case, if such date occurs before the Initial Valuation Date, the Initial Valuation Date.

"Clearing System" is set out in Part B (general terms) of the applicable Issue Specific Terms.

"Disruption Settlement Amount" has the meaning given in the Issue Specific Terms, provided that, in relation to Italian Listed Securities, the Disruption Settlement Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements.

"Euroclear Finland" means Euroclear Finland Oy, the Finnish Central Securities Depository Ltd.

"Euroclear Finland Register" means the register opened in the Euroclear Finland System for Euroclear Finland Registered Securities.

"Euroclear Finland Rules" means the rules issued by Euroclear Finland.

"Euroclear Finland System" means the technical system at Euroclear Finland for the registration of securities and the clearing and settlement of securities transactions.

"**Euroclear France**" means Euroclear France S.A., 66 rue de la Victoire, 75009 Paris, France, or any successor or replacement thereto.

"Euroclear France Accountholders" means any authorised financial intermediary institution entitled to hold securities accounts, directly or indirectly, with Euroclear France, and includes Euroclear Bank SA/NV and the depository bank for Clearstream Banking, société anonyme.

"Euroclear France Rules" means the terms and conditions governing the use of Euroclear France and the operating procedures of Euroclear France, as may be amended, supplemented or modified from time to time.

"Euroclear Netherlands" means Nederlands Centraal Instituut voor Giraal Effectenverkeer B.V., the Netherlands Central Securities Depositary.

"Euroclear Netherlands Register" means the register opened in the Euroclear Netherlands System for Euroclear Netherlands Registered Securities issued or to be issued by the Issuer.

"Euroclear Netherlands Rules" means the Securities Giro Transfer Act (*Wet giraal effectenverkeer*) and all other applicable Dutch laws, regulations and operating procedures applicable to and/or issued by Euroclear Netherlands.

"Euroclear Netherlands System" means the technical system at Euroclear Netherlands for the registration of securities and the clearing and settlement of securities transactions.

"Euroclear Sweden" means Euroclear Sweden AB, the Swedish Central Securities Depositary.

"Euroclear Sweden Register" means the register opened in the Euroclear Sweden System for Euroclear Sweden Registered Securities issued or to be issued by the Issuer.

"Euroclear Sweden Rules" means the SFIA Act and all other applicable Swedish laws, regulations and operating procedures applicable to and/or issued by Euroclear Sweden.

"Euroclear Sweden System" means the technical system at Euroclear Sweden for the registration of securities and the clearing and settlement of securities transactions.

"Finnish Custody Cash Account" means a cash account in euro opened in the name of the Issuer and maintained by the Finnish Paying Agent.

"Finnish Regulations" means the Finnish Securities Markets Act (1989/495), Act on the Book-Entry System (1991/826), Act on Book-Entry Accounts (1991/827), the Rules of the Finnish Central Securities Depository Ltd and the Rules of the OMX Nordic Exchange Helsinki Oy.

"Index Cessation/Benchmark Event" means, in respect of any Securities and a Relevant Benchmark, the occurrence or existence, as determined by the Calculation Agent, of one or more of the following events:

- (a) the bankruptcy, insolvency, receivership or the institution of analogous proceedings to any of the foregoing (as determined by the Calculation Agent) of the administrator of the Relevant Benchmark provided that, at that time, there is no successor administrator that will continue to provide the Relevant Benchmark;
- (b) the administrator of the Relevant Benchmark has ceased or will cease to provide the Relevant Benchmark permanently or indefinitely, provided that, at that time, there is no successor administrator that will continue to provide the Relevant Benchmark:
- (c) the Relevant Benchmark has been or will be permanently or indefinitely discontinued;
- (d) an announcement by the supervisor of the administrator of the Relevant Benchmark announcing that the Relevant Benchmark may no longer be used;
- (e) a public statement or publication of information by the regulatory supervisor for the administrator of the Relevant Benchmark announcing that the Relevant Benchmark is no longer representative of the market or economic reality that it is intended to measure (a "Non-Representativeness Event"); or
- (f) a change to the methodology or formula for the Relevant Benchmark or any other means of calculating the Relevant Benchmark which is material in the context of the Securities, as determined by the Calculation Agent (a "Methodology Change Event").

"NFIA Act" means the Norwegian Securities Register Act of 2002 (in Norwegian: lov om registrering av finansielle instrumenter av 5 juli 2002 nr. 64);

"Norwegian Cash Transfer Account" means a cash account in Norwegian Krone and in the name of the Norwegian Paying Agent on behalf of the Issuer from which the Norwegian Paying Agent makes payments to VPS Security Holders.

"Norwegian Custody Cash Account" means a cash account in Norwegian Krone opened in the name of the Issuer and maintained by the Norwegian Paying Agent.

"Norwegian Krone" and "NOK" mean the lawful currency of Norway.

"Relevant Benchmark" means, in respect of any Securities, a Reference Rate, exchange rate or any rate, level, value or other figure in respect of one or more Underlyings utilised in order to determine the Settlement Amount or any other amount payable or asset deliverable under the Securities.

"SFIA Act" means the Swedish Financial Instruments Accounts Act (SFS 1998:1479).

"Swedish Cash Transfer Account" means a cash account in Swedish Krona and in the name of the Swedish Paying Agent on behalf of the Issuer from which the Swedish Paying Agent makes payments to Euroclear Sweden Security Holders.

"Swedish Custody Cash Account" means a cash account in Swedish Krona opened in the name of the Issuer and maintained by the Finnish Paying Agent.

"Swedish Krona" means the lawful currency of Sweden.

"VPS" means Verdipapirsentralen ASA, the Norwegian Central Securities Depositary.

"VPS Register" means the register opened in the VPS System for VPS Registered Securities.

"VPS Rules" means the NFIA Act and all other applicable Norwegian laws, regulations and operating procedures applicable to and/or issued by the VPS.

"VPS System" means the technical system at VPS for the registration of instruments and the clearing and settlement of security transactions.

# Section 4 (Coupon)

- (1) Coupon Payment
- (a) No Coupon Amount

Unless "Coupon Payment" is specified to apply in Part B (general terms) of the applicable Issue Specific Terms, the Securities bear no coupon and pay no periodic amounts.

#### (b) Coupon Amount

If in Part B (general terms) of the applicable Issue Specific Terms "Coupon Payment" is specified to apply and/or is specified to apply if a Switch Event has occurred, the Issuer shall, on each Coupon Payment Date and/or on each Coupon Payment Date following to the Switch Event, pay the relevant Coupon Amount.

If "Coupon" is specified in Part B (general terms) of the Issue Specific Terms and a Coupon Amount is required to be calculated for a period ending on (but excluding) a date other than a Coupon Payment Date, such Coupon Amount will be calculated on the basis of the number of days in the Coupon Period, the Coupon applicable to such period and the Coupon Day Count Fraction. If Coupon Payment is specified in the applicable Issue Specific Terms, the Coupon Amount(s) shall be the only periodic amount(s) payable for the relevant Series of Securities, and no other interest amounts shall accrue in respect of the relevant Series of Securities.

#### (2) <u>Accrual of Coupon</u>

Coupon Amounts shall cease to be payable from (and including) the Coupon Cessation Date. Other than the payment of the Coupon Amount as aforesaid, no periodic amount is payable under or pursuant to the Conditions. In addition no interest shall accrue in respect of the Securities whether by reason of late payment of a Coupon Amount or otherwise.

#### (3) <u>Definitions</u>

"Coupon" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Coupon Amount" means, in respect of the Nominal and/or Calculation Amount, an amount calculated by the Calculation Agent as specified under "Coupon Amount" in Part B (general terms) of the applicable Issue Specific Terms or, if not specified there, calculated as follows:

Coupon Amount = Nominal and/or Calculation Amount x Coupon x (if specified in the applicable Issue Specific Terms) Coupon Day Count Fraction

Each Coupon Amount will be rounded to the nearest two decimal places in the Settlement Currency, with 0.005 being rounded upwards.

"Coupon Cessation Date" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Coupon Day Count Fraction" means, in respect of the calculation of a coupon amount on any Security for any period of time (the "Calculation Period"):

- if "**Actual/Actual (ICMA)**" is specified in Part B (general terms) of the applicable Issue Specific Terms –

- (A) if the Calculation Period (from and including the first day of such period but excluding the last day of such period) is equal to or shorter than the Determination Period during which the Calculation Period ends, the number of days in such Calculation Period (from (and including) the first day of such period to (but excluding) the last) divided by the product of (1) the number of days in such Determination Period and (2) the number of Coupon Payment Dates that occur in one calendar year or that would occur in one calendar year if interest were payable in respect of the whole of such year; or
- (B) if the Calculation Period is longer than the Determination Period during which the Calculation Period ends, the sum of: (A) the number of days in such Calculation Period falling in the Determination Period in which the Calculation Period begins divided by the product of (1) the number of days in such Determination Period and (2) the number of Coupon Payment Dates that occur in one calendar year or that would occur in one calendar year if interest were payable in respect of the whole of such year, and (B) the number of days in such Calculation Period falling in the next Determination Period divided by the product of (1) the number of days in such Determination Period and (2) the number of Coupon Payment Dates that occur in one calendar year or that would occur in one calendar year if interest were payable in respect of the whole of such year.
- (b) if "Actual/365" or "Actual/Actual (ISDA)" is specified in Part B (general terms) of the applicable Issue Specific Terms –

the actual number of days in the Calculation Period divided by 365 (or, if any portion of that Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366; and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);

- if "Actual/365 (Fixed)" is specified in Part B (general terms) of the applicable
 Issue Specific Terms –

the actual number of days in the Calculation Period divided by 365;

(d) - if "**Actual/360**" is specified in Part B (general terms) of the applicable Issue Specific Terms –

the actual number of days in the Calculation Period divided by 360;

(e) - if "30/360", "360/360" or "Bond Basis" is specified in Part B (general terms) of the applicable Issue Specific Terms –

the number of days in the Calculation Period divided by 360, the number of days to be calculated on the basis of a year of 360 days with 12 30-day months (unless (i) the last day of the Calculation Period is the 31st day of a month but the first day of the Calculation Period is a day other than the 30th or 31st day of a month,

in which case the month that includes that last day shall not be considered to be shortened to a 30-day month, or (ii) the last day of the Calculation Period is the last day of the month of February in which case the month of February shall not be considered to be lengthened to a 30-day month);

(f) - if "30E/360" or "Eurobond Basis" is specified in Part B (general terms) of the applicable Issue Specific Terms –

the number of days in the Calculation Period divided by 360 (the number of days to be calculated on the basis of a year of 360 days with 12 30-day months, without regard to the date of the first day or last day of the Calculation Period unless, in the case of the final Calculation Period, the Coupon Cessation Date is the last day of the month of February, in which case the month of February shall not be considered to be lengthened to a 30-day month);

(g) - if "1/1" is specified in Part B (general terms) of the applicable Issue Specific Terms – 1.

"Coupon Payment Date" means each day specified as being a Coupon Payment Date in Part B (general terms) of the applicable Issue Specific Terms.

"Coupon Period" means, unless otherwise specified within Part B (general terms) of the applicable Issue Specific Terms the period commencing on (and including) the Interest Commencement Date to (but excluding) the first Coupon Payment Date and (where there is more than one Coupon Period) each period commencing on (and including) a Coupon Payment Date to (but excluding) the next following Coupon Payment Date and, if any Coupon Amount is required to be calculated for a period ending other than on (but excluding) a relevant Coupon Payment Date, the period commencing on and including the most recent Coupon Payment Date (or if none the Interest Commencement Date) to but excluding the relevant payment date.

"**Determination Period**" means, if Actual/Actual (ICMA) is specified in the applicable Issue Specific Terms, the period from (and including) the Interest Commencement Date up to (and excluding) the first Coupon Payment Date or from (and including) each Coupon Payment Date up to (and excluding) the next Coupon Payment Date.

"Interest Commencement Date" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Switch Event" has the meaning given to it Part A (product specific terms) of the applicable Issue Specific Terms.

# Section 5 (Barrier Event)

#### (1) <u>Barrier Event in the case of Bonus Securities, Capped Bonus Securities, Barrier Reverse</u> Convertible Securities

If "Barrier Event – Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Barrier Event" occurs if the Observation Price of the Underlying reaches or falls below the Barrier on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period.

If "Barrier Event – Break" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Barrier Event" occurs if the Observation Price of the Underlying falls below the Barrier on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period.

#### (2) <u>Barrier Event in the case of Reverse Bonus Securities and Capped Reverse Bonus Se</u> curities

If "Barrier Event – Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Barrier Event" occurs if the Observation Price of the Underlying reaches or exceeds the Barrier on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period.

If "Barrier Event – Break" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Barrier Event" occurs if the Observation Price of the Underlying exceeds the Barrier on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period.

#### (3) <u>Definitions</u>

"Barrier" means the barrier specified in Part A (product specific terms) of the applicable Issue Specific Terms.

"Observation Date" means each Calculation Date within the Observation Period.

"**Observation Period**" means the observation period, if any, specified in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Observation Price**" means the observation price of the Underlying specified in Part A (product specific terms) of the applicable Issue Specific Terms.

# Section 6 (Knock-Out Event)

#### (1) <u>Knock-Out Event in the case of Turbo Warrants, Open End Turbo Warrants or Trader</u> Certificates and Mini Future Warrants or Turbo Certificates

If "Knock-Out Event - Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying reaches or falls below (in the case of Long or Bull Warrants or Long Certificates) or reaches or exceeds (in the case of Short or Bear Warrants or Short Certificates) the (Current) Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

If "Knock-Out Event - Break" in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying falls below (in the case of Long or Bull Warrants or Long Certificates) or exceeds (in the case of Short or Bear Warrants or Short Certificates) the (Current) Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

#### (2) Knock-Out Event in the case of Factor Warrants

If "Knock-Out Event - Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Intrinsic Value of the Factor Warrants on an Adjustment Date (as defined in Section 8 (5) of the General Conditions) at the Adjustment Time (as defined in Section 8 (5) of the General Conditions) or, in the event of a Stop-Loss Event (as defined in Section 7 (1) of the General Conditions) occurring, at the time when the Stop-Loss Reference Price (as defined in Section 9 (3) of the General Conditions) is determined reaches or falls below the Knock-Out Barrier.

If "Knock-Out Event - Break" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Intrinsic Value of the Factor Warrants on an Adjustment Date (as defined in Section 8 (5) of the General Conditions) at the Adjustment Time (as defined in Section 8 (5) of the General Conditions) or, in the event of a Stop-Loss Event (as defined in Section 7 (1) of the General Conditions) occurring, at the time when the Stop-Loss Reference Price (as defined in Section 9 (3) of the General Conditions) is determined falls below the Knock-Out Barrier.

#### (3) Knock-Out Event in the case of Down & Out Put Warrants

If "Knock-Out Event - Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying reaches or falls below the Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue

Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

If "Knock-Out Event - Break" in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying falls below the Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

#### (4) Knock-Out Event in the case of Up & Out Call Warrants

If "Knock-Out Event - Touch" is specified in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying reaches or exceeds the Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

If "Knock-Out Event - Break" in Part A (product specific terms) of the applicable Issue Specific Terms, a "Knock-Out Event" occurs if the Knock-Out Price of the Underlying exceeds the Knock-Out Barrier (as defined in Section 10 of the General Conditions) on the Final Valuation Date or, if the applicable Issue Specific Terms stipulate an Observation Period, on an Observation Date within the Observation Period during the Observation Hours.

#### (5) <u>Consequences of a Knock-Out Event in the case of Turbo Warrants, Open End Turbo</u> <u>Warrants or Trader Certificates, Mini Future Warrants or Turbo Certificates and Factor</u> <u>Warrants</u>

On the occurrence of a Knock-Out Event the term of the Securities ends automatically and the Security Right expires automatically without the need for a separate termination of the Securities by the Issuer. The occurrence of a Knock-Out Event is announced in accordance with Section 17 of the General Conditions.

#### (6) <u>Consequences of a Knock-Out Event in the case of Down & Out Put Warrants and Up</u> & Out Call Warrants

Unless "**Termination Right in the case of the occurrence of a Knock-Out Event**" is specified to apply in Part A (product specific terms) of the applicable Issue Specific Terms the term of the Securities ends automatically and the Security Right expires automatically without the need for a separate termination of the Securities by the Issuer in the case of the occurrence of a Knock-Out Event. The occurrence of a Knock-Out Event is announced in accordance with Section 17 of the General Conditions.

If in Part A (product specific terms) of the applicable Issue Specific Terms "**Termination Right in the case of the occurrence of a Knock-Out Event**" the Issuer has the unconditional and irrevocable right upon delivery of a termination notice in accordance with Section 17 of the General Conditions to terminate the Securities in whole, but not

in part stating the calendar day on which the termination becomes effective without observing any termination notice time span.

#### (7) <u>Knock-Out Settlement Amount</u>

In the case of a Knock-Out Event, the Security Holder receives the Knock-Out Settlement Amount. In the case of a Knock-Out Event, the Security Holder only receives the Knock-Out Settlement Amount, irrespective of whether the Security Holder has delivered an Exercise Notice in accordance with Section 2 of the General Conditions.

#### (8) Definitions

"Intrinsic Value" of the Securities on an Adjustment Date at the Adjustment Time or, in the event of a Stop-Loss Event occurring, at the time when the Stop-Loss Reference Price is determined corresponds to the product of:

- (a) the Knock-Out Reference Price minus the Current Strike (in the case of Factor Warrants Long) or the Current Strike minus the Knock-Out Reference Price (in the case of Factor Warrants Short); and
- (b) the Current Multiplier at that relevant point in time,

converted, in each case, into the Settlement Currency based on a foreign exchange rate expressed in the Reference Currency for one unit of the Settlement Currency, which is determined by the Calculation Agent in its reasonable discretion based on the market situation existing on the foreign currency market at the time of the conversion. The result will be rounded to the Intrinsic Value Rounding.

"Intrinsic Value Rounding" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"Knock-Out Price" means the price specified in Part A (product specific terms) of the applicable Issue Specific Terms.

#### "Knock-Out Settlement Amount" means

- (a) in the case of Turbo Warrants, Open End Turbo Warrants or Trader Certificates, Down & Out Put Warrants and Up & Out Call Warrants the Knock-Out Settlement Amount set out in Part A (product specific terms) of the applicable Issue Specific Terms.
- (b) in the case of Mini Future Warrants or Turbo Certificates the amount in cash equal to the product of:
  - (i) the Knock-Out Reference Price minus the Current Strike on the day on which the Knock-Out Event occurs (in the case of Mini Future Long Warrants or Turbo Long Certificates) or the Current Strike on the day on which the Knock-Out Event occurs minus the Knock-Out Reference Price (in the case of Mini Future Short Warrants or Turbo Short Certificates); and
  - (ii) the Multiplier.

The Knock-Out Settlement Amount will be (x) converted into the Settlement Currency based on a foreign exchange rate expressed in the Reference Currency for one unit of the Settlement Currency, as determined by the Calculation Agent in its reasonable discretion based on the market situation existing on the foreign currency market at the time of the conversion and (y) commercially rounded to the Knock-Out Settlement Amount Rounding.

If a "**Knock-Out Base Amount**" is indicated in Part A (product specific terms) of the applicable Issue Specific Terms, the Knock-Out Settlement Amount equals at least this Knock-Out Base Amount.

- (c) in the case of Factor Warrants the amount in cash equal to the product of:
  - (i) the Knock-Out Reference Price minus the Current Strike on the day on which the Knock-Out Event occurs (in the case of Factor Warrants Long) or the Current Strike on the day on which the Knock-Out Event occurs minus the Knock-Out Reference Price (in the case of Factor Warrants Short); and
  - (ii) the Current Multiplier.

The Knock-Out Settlement Amount will be (x) converted into the Settlement Currency based on a foreign exchange rate expressed in the Reference Currency for one unit of the Settlement Currency, as determined by the Calculation Agent in its reasonable discretion based on the market situation existing on the foreign currency market at the time of the conversion and (y) commercially rounded to the Knock-Out Settlement Amount Rounding.

If a "**Knock-Out Base Amount**" is indicated in Part A (product specific terms) of the applicable Issue Specific Terms, the Knock-Out Settlement Amount equals at least this Knock-Out Base Amount.

"Knock-Out Settlement Amount Rounding" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

#### "Knock-Out Reference Price" means:

(a) in the case of Mini Future Warrants or Turbo Certificates the lowest (in the case of Mini Future Long Warrants or Turbo Long Certificates) or highest (in the case of Mini Future Short Warrants or Turbo Short Certificates) price of the Underlying as determined by the Calculation Agent, unless otherwise defined in the applicable Issue Specific Terms, within three (3) Calculation Hours following the occurrence of the Knock-Out Event (the "Knock-Out Settlement Period"). The Calculation Agent may, in its reasonable discretion, also determine a more advantageous price for the Security Holders as the Knock-Out Reference Price. If the Knock-Out Event occurs within a shorter period than three (3) hours (or such other time period is specified in the applicable Issue Specific Terms) prior to the end of the Calculation Hours on a Calculation Date, the period for determining the Knock-Out Reference Price

for the Underlying is extended until the expiration of a total of three (3) Calculation Hours (or such other time period specified in the applicable Issue Specific Terms) to the immediately following Calculation Date.

- (b) in the case of Factor Warrants
  - (i) the Underlying Price on the respective Adjustment Date or,
  - (ii) if a Stop-Loss Event has occurred, the relevant Stop-Loss Reference Price determined after the occurrence of the respective Stop-Loss Event.

"**Observation Date**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Observation Hours**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Observation Period**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

# Section 7 (Stop-Loss Event)

#### (1) Stop-Loss Event in the case of Factor Warrants

A "Stop-Loss Event" occurs, if on the First Observation Date or on a subsequent Observation Date during the Observation Hours, the Stop-Loss Price reaches or falls below (in the case of Factor Warrants Long) or reaches or exceeds (in the case of Factor Warrants Short) the respective Current Stop-Loss Barrier.

#### (2) <u>Definitions</u>

"**First Observation Date**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Observation Date**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Observation Hours**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"Stop-Loss Price" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

# Section 8 (Adjustment of Strike)

#### (1) Strike Adjustment

Unless "**Adjustment of Strike**" is specified to apply in Part A (product specific terms) of the applicable Issue Specific Terms, the Strike will not be adjusted during the term of

the Securities (subject to an adjustment of the Strike pursuant to the relevant Underlying Specific Provisions). The "**Strike**" is set out in Part A (product specific terms) of the applicable Issue Specific Terms.

If "Adjustment of Strike" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Strike will be adjusted on a regular basis during the term of the Securities pursuant to the following paragraphs.

#### (2) Strike Adjustment in the case of Open End Turbo Warrants or Trader Certificates

The "**Strike**" on the Strike Date will be set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Strike on the Strike Date pursuant to the relevant Underlying Specific Provisions).

In the case of other Underlyings than total return indices, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by deducting the sum of the Dividend Effects on the Dividend Records Dates from (and excluding) the Adjustment Date up to (and including) the next following Adjustment Date from the product of (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and (ii) the Financing Factor.

In the case of total return indices, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by adding the sum of the Dividend Effects on the Dividend Records Dates from (and excluding) the Adjustment Date up to (and including) the next following Adjustment Date to the product of (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and (ii) the Financing Factor.

The result of the calculation set out in the foregoing paragraph will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Open End Turbo Bull Warrants or Trader Long Certificates) or rounded down (in the case of Open End Turbo Bear Warrants or Trader Short Certificates)) and will, for the purposes of the Conditions, constitute the new Strike (the "Current Strike").

Each reference in the Conditions to the Strike in effect at a relevant time shall mean the Strike as adjusted from (and including) the First Strike Adjustment Date up to (and including) the stated point in time pursuant to the aforementioned rule.

#### (3) Strike Adjustment in the case of Mini Future Warrants or Turbo Certificates

The "**Strike**" on the Strike Date will be set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Strike on the Strike Date pursuant to the relevant Underlying Specific Provisions).

In the case of other Underlyings than total return indices, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by deducting the sum of the Dividend Effects on the Dividend Records Dates from (and excluding) the Adjustment Date up to (and including) the next

following Adjustment Date from the product of (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and (ii) the Financing Factor.

In the case of total return indices, the Strike is adjusted on the First Strike Adjustment Date and on each following Adjustment Date with effect as of the Adjustment Time by adding the sum of the Dividend Effects on the Dividend Records Dates from (and excluding) the Adjustment Date up to (and including) the next following Adjustment Date to the product of (i) the Current Strike on the Adjustment Date in effect immediately prior to the Adjustment Time and (ii) the Financing Factor.

The result of the calculation set out in the foregoing paragraph will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Mini Future Long Warrants or Turbo Long Certificates) or rounded down (in the case of Mini Future Short Warrants or Turbo Short Certificates)) and will, for the purposes of the Conditions, constitute the new Strike (the "Current Strike").

Each reference in the Conditions to the Strike in effect at a relevant time shall mean the Strike as adjusted from (and including) the First Strike Adjustment Date up to (and including) the stated point in time pursuant to the aforementioned rule.

#### (4) <u>Strike Adjustment in the case of Factor Warrants</u>

The "**Strike**" on the Strike Date will be set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Strike on the Strike Date pursuant to the relevant Underlying Specific Provisions).

In the case of Factor Warrants that are linked to an Underlying other than Futures Contracts:

The Strike will be adjusted on each Adjustment Date at the Adjustment Time by (i) subtracting the Dividend Effect on the Adjustment Date from the Underlying Reference, in each case, in effect on the Adjustment Date and (ii) multiplying the result by the Leverage.

*In the case of Factor Warrants that are linked to a Futures Contract as Underlying:* 

The Strike will be adjusted on each Adjustment Date <u>which is not a Rollover Date</u> (as defined in the Futures Contract Linked Provisions) at the Adjustment Time by multiplying the Underlying Reference by the Leverage.

The Strike will be adjusted on each Adjustment Date which is a Rollover Date at the Adjustment Time by multiplying the Rollover Price (as defined in the Futures Contract Linked Provisions) by the Leverage.

Furthermore, in the case of the occurrence of a Stop-Loss Event, the Strike will be adjusted at the time when the Stop-Loss Reference Price (as defined in Section 9 (3) of the General Conditions) is determined by multiplying the Underlying Reference by the Leverage.

The result of the calculations set out in the foregoing paragraphs will be rounded to the Strike Rounding Amount (being always rounded up (in the case of Factor Warrants

Long) or rounded down (in the case of Factor Warrants Short)) and will, for the purposes of the Conditions, constitute the new Strike (the "Current Strike").

Each reference in the Conditions to the Strike in effect at a relevant time shall mean the Strike as adjusted from (and including) the First Observation Date up to (and including) the stated point in time pursuant to the aforementioned rules.

#### (5) <u>Definitions</u>

"Adjustment Date" is set out in Part A (product specific terms) of the applicable Issue Specific Terms.

#### "Adjustment Time" means

- (i) in the case of Open End Turbo Warrants or Trader Certificates and Mini Future Warrants or Turbo Certificates the Adjustment Time set out in Part A (product specific terms) of the applicable Issue Specific Terms; or
- (ii) in the case of Factor Warrants the time falling immediately after the determination and publication of the Underlying Price or, if a Stop-Loss Event has occurred less than three Observation Hours prior to the determination and publication of the Underlying Price, the time falling immediately after the determination of the Stop-Loss Reference Price, but at the earliest after the determination and publication of the Underlying Price.

"Underlying Reference" means the Underlying Price on the Adjustment Date or, if a Stop-Loss Event occurs between the time when the Underlying Price is determined on that Adjustment Date and the last Adjustment Time, the Stop-Loss Reference Price determined after the occurrence of the respective Stop-Loss Event.

"Dividend Effect" means (i) in the case of shares, price return indices and total return indices as Underlying an amount, calculated by the Calculation Agent in its reasonable discretion based on the dividends or cash distributions equivalent to dividends distributed on a Dividend Record Date on the relevant share or on one or several shares comprised in the index or (ii) in the case of other Underlyings than shares, price return indices and total return indices, zero, whereby, in the case of Mini Future Warrants or Turbo Certificates or Open End Turbo Warrants or Trader Certificates, the respective amount is also multiplied by the Dividend Factor.

#### "Dividend Factor" on any given day is,

• in the case of shares or price return indices as Underlying, a value between 0 and 1, calculated by the Calculation Agent in its reasonable discretion based on (i) the taxes or charges payable by the Calculation Agent or companies affiliated with it on the dividends or cash distributions equivalent to dividends distributed on that day on the relevant share or one or several of the shares comprised in the index and/or (ii) - in the case that the relevant Securities are subject to withholding under Section 871(m) of the U.S. Internal Revenue Code – the relevant withholding tax amount to be paid pursuant to Section 871(m) of the U.S. Internal

Revenue Code in relation to the relevant share or on one or several shares comprised in the index;

in the case of total return indices as Underlying, the difference between (A) 1 and (B) a value between 0 and 1, calculated by the Calculation Agent in its reasonable discretion based on (i) the taxes or charges payable by the Calculation Agent or companies affiliated with it on the dividends or cash distributions equivalent to dividends distributed on that day on the relevant share or one or several of the shares comprised in the index and/or (ii) - in the case that the relevant Securities are subject to withholding under Section 871(m) of the U.S. Internal Revenue Code – the relevant withholding tax amount to be paid pursuant to Section 871(m) of the U.S. Internal Revenue Code in relation to the relevant share or on one or several shares comprised in the index.

For the avoidance of doubt, in the case that the Securities are subject to with-holding under Section 871(m) of the U.S. Internal Revenue Code it should be noted that at the time when a dividend or cash distributions equivalent to dividends distributed is paid on the share of an entity formed or incorporated in the United States the relevant withholding tax amount pursuant to Section 871(m) of the U.S. Internal Revenue Code is deemed to be paid to the Security Holder in respect of the Securities whereas it shall actually be withheld by Goldman Sachs and deposited with the United States Internal Revenue Service.

"Dividend Record Date" is a day on which shares of the relevant company for which dividends or cash amounts equivalent to dividends are to be distributed are traded "ex dividend" on their relevant primary exchange.

"Financing Factor" means

$$1 + \frac{\text{Financing Rate} \times \text{T}}{360}$$

#### Where

"Financing Rate" means the Financing Rate in effect on the current Adjustment Date

"T" equals the number of calendar days from the current Adjustment Date (exclusive) until the next Adjustment Date (inclusive)

"Financing Rate" on any given day corresponds to the Reference Rate on that given day plus (in the case of Bull or Long Securities) or minus (in the case of Bear or Short Securities) the Interest Margin.

"First Strike Adjustment Date" is set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Interest Margin" means the "Initial Interest Margin" specified in Part A (product specific terms) of the applicable Issue Specific Terms. The Calculation Agent has the

right to adjust the Interest Margin with effect as of any Adjustment Date in its reasonable discretion up to the "Maximum Interest Margin" set out in Part A (product specific terms) of the applicable Issue Specific Terms. The adjustment of the Interest Margin as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 17 of the General Conditions. Each reference contained in the Conditions to the Interest Margin is deemed a reference to the Interest Margin as adjusted in accordance with the foregoing provisions of this paragraph from (and including) the date on which the adjustment becomes effective.

"Lever" is the Lever set out in Part A (product specific terms) of the applicable Issue Specific Terms.

#### "Leverage" means:

(i) in the case of Factor Warrants Long:

$$1 - \frac{1}{\text{Lever}}$$

(ii) in the case of Factor Warrants Short:

$$1 + \frac{1}{\text{Lever}}$$

"Reference Rate" means, in respect of any day:

(i) in the case of Open End Turbo Warrants or Trader Certificates and Mini Future Warrants or Turbo Certificates linked to an underlying other than foreign exchange rates, the Reference Rate set out in Part A (product specific terms) of the applicable Issue Specific Terms, as it is shown on the respective day on the Reference Rate Screen Page. If the Reference Rate Screen Page is not available at the relevant time or if the Reference Rate is not shown, the Reference Rate shall mean the rate shown on the corresponding screen page of another financial information service. If the aforementioned Reference Rate is no longer published as aforesaid, the relevant Reference Rate is cancelled, the responsible entity is not able to calculate the Reference Rate or the Reference Rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the Reference Rate based on the applicable market conditions. Furthermore, the Calculation Agent has the right to replace the Reference Rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The new Reference Rate will be announced in accordance with Section 17 of the General Conditions.

(ii) in the case of Open End Turbo Warrants or Trader Certificates and Mini Future Warrants or Turbo Certificates referencing a foreign exchange rate, the rate equal to the difference between the Reference Rate for the Reference Currency as it is shown on the Reference Rate Screen Page for the Reference Currency and the Reference Rate for the Base Currency as it is shown on the Reference Rate Screen Page for the Base Currency. If the respective screen pages at the relevant time are not available or if the relevant reference rate is not shown, the Reference Rate shall mean the rates shown on the corresponding screen pages of another financial information service. If the aforementioned reference rates should no longer be shown as aforesaid, the respective reference rate is cancelled, the responsible entity is not able to calculate the respective reference rate or the respective reference rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the respective Reference Rate based on the then applicable market conditions. Furthermore, the Calculation Agent has the right to replace the Reference Rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Reference Rate for the Reference Currency or the Reference Rate for the Base Currency as aforesaid will be announced in accordance with Section 17 of the General Conditions.

"Reference Rate for the Base Currency" is the Reference Rate for the Base Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate for the Reference Currency" is the Reference Rate for the Reference Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page" is the Reference Rate Screen Page as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page for the Base Currency" is the Reference Rate Screen Page for the Base Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page for the Reference Currency" is the Reference Rate Screen Page for the Reference Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Strike Date" means in the case of Open End Turbo Warrants or Trader Certificates and Mini Future Warrants or Turbo Certificates and Factor Warrants, the Strike Date as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"**Strike Rounding Amount**" is the Strike Rounding Amount as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

Section 9 (Adjustment of Multiplier)

#### (1) Multiplier Adjustment

Unless "Adjustment of Multiplier" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Multiplier will not be adjusted during the term of the Securities (subject to an adjustment of the Multiplier pursuant to the relevant Underlying Specific Provisions). The "Multiplier" is set in the applicable Issue Specific Terms.

If "Adjustment of Multiplier" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Multiplier will be adjusted on a regular basis during the term of the Securities pursuant to the following paragraphs.

#### (2) <u>Multiplier Adjustment in the case of Factor Warrants</u>

The "Multiplier" on the Strike Date means the Multiplier as set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Multiplier on the Strike Date pursuant to the relevant Underlying Specific Provisions).

In the case of Factor Warrants that are linked to an Underlying other than Futures Contracts:

The Multiplier is adjusted on each Adjustment Date (as defined in Section 8 (5) of the General Conditions) at the Adjustment Time (as defined in Section 8 (5) of the General Conditions) by (i) multiplying the Current Multiplier on the Adjustment Date in effect immediately prior to the adjustment by the Adjustment Factor and (ii) deducting the Adjustment Costs from the result of the calculation set out in subparagraph (i).

*In the case of Factor Warrants that are linked to a Futures Contract as Underlying:* 

The Multiplier is adjusted on each Adjustment Date (as defined in Section 8 (5) of the General Conditions) which is not a Rollover Date (as defined in the Futures Contract Linked Provisions) at the Adjustment Time (as defined in Section 8 (5) of the General Conditions) by (i) multiplying the Current Multiplier on the Adjustment Date in effect immediately prior to the adjustment by the Adjustment Factor and (ii) deducting the Adjustment Costs from the result of the calculation set out in subparagraph (i).

The Multiplier is adjusted on each Adjustment Date which is a Rollover Date at the Adjustment Time by (i) multiplying the Current Multiplier on the Adjustment Date in effect immediately prior to the adjustment by the Adjustment Factor and the Rollover Factor and (ii) deducting the Adjustment Costs from the result of the calculation set out in subparagraph (i).

Furthermore, in the case of the occurrence of a Stop-Loss Event, the Multiplier will be adjusted at the time when the Stop-Loss Reference Price (as defined in Section 9 (3) of the General Conditions) is determined by (i) multiplying the Current Multiplier in effect immediately prior to the time when the Stop-Loss Reference Price is determined by the Adjustment Factor and (ii) deducting the Adjustment Costs from the result of the calculation set out in subparagraph (i).

The result of the calculations set out in the foregoing paragraphs will be rounded down to the Multiplier Rounding Amount and will, for the purposes of the Conditions, constitute the new Multiplier (the "Current Multiplier").

Each reference in the Conditions to the Multiplier in effect at any time shall mean the Multiplier as adjusted from (and including) the First Observation Date up to (and including) the stated point in time pursuant to the aforementioned rules.

#### (3) <u>Definitions</u>

"Adjustment Factor" means a factor determined in accordance with the following formula:

(i) in the case of Factor Warrants Long (in the case of an Underlying other than a total return indices):

Lever 
$$\times \frac{(Underlying\ Reference - Strike_{old})}{Underlying\ Reference - k \times Dividend}$$

(ii) in the case of Factor Warrants Long (in the case of a total return index as Underlying):

Lever 
$$\times \frac{(Underlying\ Reference - Strike_{old})}{Underlying\ Reference} + (1 - k) \times Dividend$$

(iii) in the case of Factor Warrants Short:

Lever 
$$\times \frac{(Strike_{old} - Underlying Reference)}{Underlying Reference - k \times Dividend}$$

#### Where:

"*Underlying Reference*" means the Underlying Reference defined in Section 8 (5) of the General Conditions;

"Strike<sub>old</sub>" means the Current Strike in effect prior to the adjustment;

"Dividend" means the Dividend Effect set out in Section 8 (5) of the General Conditions on the Adjustment Date; in the case of an adjustment due to the occurrence of a Stop-Loss Event the Dividend is zero (0);

"Lever" means the Lever specified in Section 8 (5) of the General Conditions; and

"k" means the Dividend Factor defined in Section 8 (5) of the General Conditions.

#### "Adjustment Costs" means:

- (a) in the case of Factor Warrants Long the Roll Over Component plus the Interest Component; and
- (b) in the case of Factor Warrants Short the Roll Over Component minus the Interest Component.

"Financing Rate" on any given day means the Reference Rate on that day plus (in the case of Factor Warrants Long) or minus (in the case of Factor Warrants Short) the Interest Margin.

"Interest Margin" on the Strike Date means the "Initial Interest Margin" specified in Part A (product specific terms) of the applicable Issue Specific Terms. The Calculation Agent has the right to adjust the Interest Margin with effect as of any Adjustment Date in its reasonable discretion up to the "Maximum Interest Margin" set out in Part A (product specific terms) of the applicable Issue Specific Terms. The adjustment of the Interest Margin as aforesaid and the date on which the adjustment becomes effective will be announced in accordance with Section 17 of the General Conditions. Each reference contained in the Conditions to the Interest Margin is deemed a reference to the Interest Margin as adjusted in accordance with the foregoing provisions of this paragraph from (and including) the date on which the adjustment becomes effective.

"Interest Component" means the interest component as determined in accordance with the following formula:

(a) in the case of Factor Warrants Long (in the case of an Underlying other than a total return indices)

$$\frac{\textit{Financing Rate} \times \frac{\textit{N}}{360} \times \textit{Strike}_{\textit{new}} \times \textit{Adjustment Factor} \times \textit{Multiplier}_{\textit{old}}}{\underbrace{\textit{Underlying Reference} - k \times \textit{Dividend}}_{\textit{Lever}}}$$

(b) in the case of Factor Warrants Long (in the case of a total return index as Underlying)

$$\frac{Financing \ Rate \times \frac{N}{360} \times Strike_{new} \times Adjustment \ Factor \times Multiplier_{old}}{\frac{Underlying \ Reference + (1-k) \times Dividend}{Lever}}$$

(c) in the case of Factor Warrants Short

$$\frac{Financing\ Rate \times \frac{N}{360} \times Strike_{new} \times Adjustment\ Factor \times Multiplier_{old}}{\underbrace{\frac{Underlying\ Reference\ -k \times Dividend}{Lever}}}$$

Where:

"Financing Rate" means the Financing Rate as defined above;

"Adjustment Factor" means the Adjustment Factor as defined above;

"N" means the number of calendar days from (and excluding) the current Adjustment Date up to (and including) the next following Adjustment Date; in the case of an adjustment due to the occurrence of a Stop-Loss Event "N" is zero (0);

"Strike<sub>new</sub>" means the Current Strike after the adjustment made to the Strike in accordance with Section 8 of the General Conditions;

"Multiplier<sub>old</sub>" means the Current Multiplier prior to the adjustment;

"Underlying Reference" means the Underlying Reference as defined in Section 8 (5) of the General Conditions;

"k" means the Dividend Factor defined in Section 8 (5) of the General Conditions;

"Dividend" means the Dividend Effect set out in Section 8 (5) of the General Conditions on the Adjustment Date; in the case of an adjustment due to the occurrence of a Stop-Loss Event the Dividend is zero (0); and

"Lever" means the Lever as defined in Section 8 (5) of the General Conditions.

"Multiplier Rounding Amount" is the Multiplier Rounding Amount set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate" means, in respect of any day:

(i) in the case of Factor Warrants referencing an underlying other than foreign exchange rates, the Reference Rate set out in Part A (product specific terms) of the applicable Issue Specific Terms, as it is shown on the respective day on the Reference Rate Screen Page. If the Reference Rate Screen Page is not available at the relevant time or if the Reference Rate is not shown, the Reference Rate shall mean the rate shown on the corresponding screen page of another financial information service. If the aforementioned Reference Rate is no longer published as aforesaid, the relevant Reference Rate is cancelled, the responsible entity is not able to calculate the Reference Rate or the Reference Rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the Reference Rate based on the applicable market conditions. Furthermore, the Calculation Agent has the right to replace the Reference Rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The new Reference Rate will be announced in accordance with Section 17 of the General Conditions.

(ii) in the case of Factor Warrants linked to a foreign exchange rate, the rate equal to the difference between the Reference Rate for the Reference Currency as it is shown on the Reference Rate Screen Page for the Reference Currency and the Reference Rate for the Base Currency as it is shown on the Reference Rate Screen Page for the Base Currency. If the respective screen pages at the relevant time are not available or if the relevant reference rate is not shown, the Reference Rate shall mean the rates shown on the corresponding screen pages of another financial information service. If the aforementioned reference rates should no longer be shown as aforesaid, the respective reference rate is cancelled, the responsible entity is not able to calculate the respective reference rate or the respective reference rate may no longer be used due to legal requirements, the Calculation Agent has the right to determine in its reasonable discretion the respective Reference Rate based on the

then applicable market conditions. Furthermore, the Calculation Agent has the right to replace the Reference Rate by another rate with effect as of any Adjustment Date in its reasonable discretion, taking into account prevailing market conditions (such as liquidity of global financial markets, availability and cost of capital and credit, interest rates, borrowing costs, repurchase costs, any imposition or announcement of any legislation or regulation which require higher capital ratio requirements for banks). The adjustment of the Reference Rate for the Reference Currency or the Reference Rate for the Base Currency as aforesaid will be announced in accordance with Section 17 of the General Conditions.

"Reference Rate for the Base Currency" is the Reference Rate for the Base Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate for the Reference Currency" is the Reference Rate for the Reference Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page" is the Reference Rate Screen Page as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page for the Base Currency" is the Reference Rate Screen Page for the Base Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Reference Rate Screen Page for the Reference Currency" is the Reference Rate Screen Page for the Reference Currency as set out in Part A (product specific terms) of the applicable Issue Specific Terms.

"Roll Over Component" means the roll over component as determined in accordance with the following formula:

$$\frac{Roll\ Over\ Spread}{2} \times Underlying\ Reference\ \times\ \left|Adjustment\ Factor\ \times\ Multiplier_{old}\ -\ Multiplier_{pre}\right|}{Underlying\ Reference\ -\ k\ \times\ Dividend}$$

#### Where:

"Roll Over Spread" means the Roll Over Spread in effect at the time of the adjustment;

"Underlying Reference" means the Underlying Reference as defined in Section 8 (5) of the General Conditions;

"Adjustment Factor" means the Adjustment Factor as defined above;

"Multiplier<sub>old</sub>" means the Current Multiplier prior to the adjustment;

"Multiplier<sub>pre</sub>" means the Multiplier<sub>old</sub>; in the case of an adjustment due to the occurrence of a Stop-Loss Event "Multiplier<sub>pre</sub>" is zero (0);

"k" means the Dividend Factor defined in Section 8 (5) of the General Conditions;

"Dividend" means the Dividend Effect set out in Section 8 (5) of the General Conditions on the Adjustment Date; in the case of an adjustment due to the occurrence of a Stop-Loss Event the Dividend is zero (0);

"Lever" means the Lever as defined in Section 8 (5) of the General Conditions.

"**Rollover Factor**" means – in the case of Factor Warrants linked to Futures Contracts – the rollover factor as determined in accordance with the following formula:

$$(Rollover\ Price_{old}/Rollover\ Price_{new})_{\times}((1-TF)/(1+TF))$$

"Rollover Price<sub>old</sub>" means the Rollover Price for the Futures Contract on that Rollover Date prior to the Roll Over

"Rollover Price<sub>new</sub>" means the Rollover Price for the Futures Contract after the Rollover

"TF" means the Transaction Fee specified in the Futures Contract Linked Provision 8 (*Definitions*)

"Roll Over Spread" on the Strike Date corresponds to the "Initial Roll Over Spread" set out in Part A (product specific terms) of the applicable Issue Specific Terms. The Calculation Agent has the right to adjust the Roll Over Spread in its reasonable discretion with effect as at an Adjustment Date up to the "Maximum Roll Over Spread" set out in Part A (product specific terms) of the applicable Issue Specific Terms. The adjustment of the Roll Over Spread on the date on which the adjustment becomes effective will be announced in accordance with Section 17 of the General Conditions. Each reference contained in the Conditions to the Roll Over Spread is deemed a reference to the Roll Over Spread as adjusted in accordance with the preceding sentence from (and including) the date on which the adjustment becomes effective.

"Stop-Loss Reference Price" is the lowest (in the case of Factor Warrants Long) or highest (in the case of Factor Warrants Short) price of the Underlying as determined by the Calculation Agent in its reasonable discretion during the three (3) hours after the occurrence of the Stop-Loss Event (the "Stop-Loss Settlement Period"). In its discretion, the Calculation Agent may also determine a price that is more advantageous for the Security Holders as the Stop-Loss Reference Price. If the Stop-Loss Event occurs within a period which commences less than three (3) hours prior to the end of the Observation Hours on the relevant Calculation Date, the period for determining the Stop-Loss Reference Price for the Underlying will be extended until the expiration of a total of three (3) Calculation Hours to the immediately following Calculation Date.

# Section 10 (Adjustment of Knock-Out Barrier)

#### (1) Knock-Out Barrier Adjustment

Unless "Adjustment of Knock-Out Barrier" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Knock-Out Barrier will not be adjusted

during the term of the Securities (subject to an adjustment of the Knock-Out Barrier pursuant to the relevant Underlying Specific Provisions). "**Knock-Out Barrier**" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

If "Adjustment of Knock-Out Barrier" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Knock-Out Barrier will be adjusted on a regular basis during the term of the Securities pursuant to the following paragraphs.

## (2) <u>Knock-Out Barrier Adjustment in the case of Open End Turbo Warrants or Trader Certificates</u>

The "**Knock-Out Barrier**" on the Strike Date means the Knock-Out Barrier set out in Part A (product specific terms) of the applicable Issue Specific Terms and corresponds to the Strike on the Strike Date (subject to an adjustment of the Knock-Out Barrier on the Strike Date pursuant to the relevant Underlying Specific Provisions).

The Knock-Out Barrier will be adjusted in the same manner as any adjustment of the Strike on each Adjustment Date pursuant to Section 8 of the General Conditions and, in the case of Futures Contracts as Underlying, on each Rollover Date pursuant to Futures Contract Linked Provision 5 (*Rolling Futures Provisions*) (in each case the "Current Knock-Out Barrier").

#### (3) <u>Knock-Out Barrier Adjustment in the case of Mini Future Warrants or Turbo Certificates</u>

The "Knock-Out Barrier" on the Strike Date means the Knock-Out Barrier set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Knock-Out Barrier on the Strike Date pursuant to the relevant Underlying Specific Provisions).

The Knock-Out Barrier is adjusted on every Knock-Out Adjustment Date at the Adjustment Time by multiplying the Current Strike on the Knock-Out Adjustment Date after the Adjustment Time by the Knock-Out Factor.

The result of the calculation set out in the foregoing paragraph will be rounded up (in the case of Mini Future Long Warrants or Turbo Long Certificates) or rounded down (in the case of Mini Future Short Warrants or Turbo Short Certificates) to the Knock-Out Barrier Rounding Amount and will, for the purposes of the Conditions, constitute the new Knock-Out Barrier (the "Current Knock-Out Barrier").

#### (4) Definitions

"Knock-Out Adjustment Date" means (i) the first business day of each calendar month after the Strike Date, (ii) each Dividend Record Date and (iii), in the case of Futures Contracts as Underlying only, each Rollover Date.

"Knock-Out Barrier Rounding Amount" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"Knock-Out Buffer" means the Knock-Out Buffer on the Knock-Out Adjustment Date. The "Initial Knock-Out Buffer" on the Strike Date corresponds to the Initial Knock-

Out Buffer as set out in Part A (product specific terms) of the applicable Issue Specific Terms. The Issuer has the right to adjust the Knock-Out Buffer with effect as of a Knock-Out Adjustment Date up to the "Maximum Knock-Out Buffer" as set out in Part A (product specific terms) of the applicable Issue Specific Terms, if, *inter alia*, the volatility of the Underlying to which the Mini Future Warrants or Turbo Certificates are linked changes materially. Each reference contained in the Conditions to the Knock-Out Buffer shall be construed as a reference to the Knock-Out Buffer as adjusted in accordance with the preceding sentence of this definition from (and including) the date on which the relevant adjustment as aforesaid becomes effective. The adjustment of the Knock-Out Buffer and the date on which the adjustment becomes effective will be announced in accordance with Section 17 of the General Conditions.

#### "Knock-Out Factor" is determined as follows:

(i) in the case of Mini Future Long Warrants or Turbo Long Certificates:

$$1 + Knock - Out Buffer$$

(ii) in the case of Mini Future Short Warrants or Turbo Short Certificates:

# Section 11 (Adjustment of Stop-Loss Barrier)

#### (1) Stop-Loss Barrier Adjustment

Unless "Adjustment of Stop-Loss Barrier" is specified to apply in the Issue Specific Terms, the Stop-Loss Barrier will not be adjusted during the term of the Securities (subject to an adjustment of the Stop-Loss Barrier pursuant to the relevant Underlying Specific Provisions). "Stop-Loss Barrier" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

If "Adjustment of Stop-Loss Barrier" is specified to apply in Part A (product specific terms) of the Issue Specific Terms, the Stop-Loss Barrier will be adjusted on a regular basis during the term of the Securities pursuant to the following paragraphs.

#### (2) <u>Stop-Loss Barrier Adjustment in the case of Factor Warrants</u>

The "Stop-Loss Barrier" on the Strike Date corresponds to the Stop-Loss Barrier as set out in Part A (product specific terms) of the applicable Issue Specific Terms (subject to an adjustment of the Stop-Loss Barrier on the Strike Date pursuant to the relevant Underlying Specific Provisions).

In the case of Factor Warrants that are linked to an Underlying other than Futures Contracts:

The Stop-Loss Barrier is adjusted on each Adjustment Date (as defined in Section 8 (5) of the General Conditions) at the Adjustment Time (as defined in Section 8 (5) of the

General Conditions) by (i) subtracting the Dividend Effect from the Underlying Reference (as defined in Section 8 (5) of the General Conditions), in each case, in effect on the Adjustment Date and (ii) multiplying the result thereof by the Stop-Loss Factor.

In the case of Factor Warrants that are linked to a Futures Contract as Underlying:

The Stop-Loss Barrier is adjusted on each Adjustment Date (as defined in Section 8 (5) of the General Conditions) which is not a Rollover Date (as defined in the Futures Contract Linked Provisions) at the Adjustment Time (as defined in Section 8 (5) of the General Conditions) by multiplying the Underlying Reference by the Stop-Loss Factor.

The Stop-Loss Barrier is adjusted on each Adjustment Date <u>which is a Rollover Date</u> at the Adjustment Time by multiplying the Rollover Price (as defined in the Futures Contract Linked Provisions) by the Stop-Loss Factor.

Furthermore, in the case of the occurrence of a Stop-Loss Event, the Stop-Loss Barrier will be adjusted at the time when the Stop-Loss Reference Price (as defined in Section 9 (3) of the General Conditions) is determined by multiplying the Underlying Reference by the Stop-Loss Factor.

The result of the calculations set out in the foregoing paragraphs will be rounded up (in the case of Factor Warrants Long) or rounded down (in the case of Factor Warrants Short) to the Stop-Loss Barrier Rounding Amount and will, for the purposes of the Conditions, constitute the new Stop-Loss Barrier (the "Current Stop-Loss Barrier").

Each reference in the Conditions to the Stop-Loss Barrier in effect at any time shall mean the Stop-Loss Barrier as adjusted from (and including) the First Observation Date up to (and including) the stated point in time pursuant to the aforementioned provisions.

# (3) <u>Definitions</u>

"Stop-Loss Barrier Rounding Amount" has the meaning given to it in Part A (product specific terms) of the applicable Issue Specific Terms.

"Stop-Loss Buffer" is set out in Part A (product specific terms) of the applicable Issue Specific Terms. The Issuer has the right to adjust the Stop-Loss Buffer with effect as of an Adjustment Date up to the "Maximum Stop-Loss Buffer" as set out in Part A (product specific terms) of the applicable Issue Specific Terms, if, *inter alia*, the volatility of the Underlying to which the Factor Warrants are linked changes materially. Each reference contained in the Conditions to the Stop-Loss Buffer shall be construed as a reference to the Stop-Loss Buffer as adjusted in accordance with the preceding sentence of this definition from (and including) the date on which the relevant adjustment as aforesaid becomes effective. The adjustment of the Stop-Loss Buffer and the date on which the adjustment becomes effective will be announced in accordance with Section 17 of the General Conditions.

"Stop-Loss Factor" is determined as follows:

(i) in the case of Factor Warrants Long:

$$1 - Stop - Loss Buffer$$

#### (ii) in the case of Factor Warrants Short:

1 + Stop - Loss Buffer

#### **Section 12**

# (Ordinary Termination Right of the Issuer; Termination Right following a Change in Law Event)

# (1) Ordinary Termination Right of the Issuer

If "**Ordinary Termination Right of the Issuer**" has been specified in Part B (general terms) of the applicable Issue Specific Terms to be not applicable the Issuer has no ordinary termination right.

If "Ordinary Termination Right of the Issuer" has been specified in Part B (general terms) of the applicable Issue Specific Terms to be applicable, the Issuer has an unconditional and irrevocable right, upon its issue of a Termination Notice (as defined in paragraph (3)(a) below), to redeem the Securities in whole, but not in part, at the Settlement Amount or, if a Termination Amount in the case of an ordinary termination is set out in Part B (general terms) of the applicable Issue Specific Terms, at the Termination Amount in the case of an ordinary termination in respect of each Security (subject to the occurrence of a Knock-out Event pursuant to Section 6 of the General Conditions and/or an Early Redemption pursuant to the Underlying Specific Provisions). For the purposes of calculating the Settlement Amount the Termination Date is regarded as the Final Valuation Date. Should this date not be a Calculation Date, the immediately following Calculation Date is regarded as the Final Valuation Date. The Settlement Amount or Termination Amount (as the case may be) in the case of an ordinary termination of the Securities will be due on the Settlement Date.

In relation to Italian Listed Securities the Settlement Amount and/or the Termination Amount in the case of an ordinary termination (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements.

# (2) Termination right following a change in law

At any time following the occurrence of a Change in Law Event, the Issuer shall have the right (i) to determine the appropriate adjustment, if any, to be made to any one or more of the terms of the Securities, including without limitation, any variable or term relevant to the settlement or payment under such Conditions applicable to the Securities, as the Calculation Agent determines appropriate to account for the Change in Law Event, and to determine the effective date of that adjustment in accordance with Section 17 of the General Conditions or, if an adjustment under (i) is not possible, (ii) upon its issue of a Termination Notice (as defined in paragraph (3)(b) below), to redeem the Securities in whole, but not in part, at the Non-scheduled Early Repayment Amount.

A "Change in Law Event" shall be deemed to have occurred upon the Issuer becoming aware of (i) the adoption or announcement of, or any change in, any relevant law, rule, regulation, judgment, order, sanction, directive of any governmental, administrative, legislative or judicial authority or power (including any tax law and any Sanction Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or related Hedge Positions and/or Hedging Positions) ("applicable law"), or (ii) the promulgation of, or any change in, the formal or informal interpretation by a court, tribunal, governmental, administrative, legislative, regulatory or judicial authority or power with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or relevant Clearing System) of any applicable law or regulation (including any tax law), which has the effect (as determined by the Issuer in its discretion, acting in good faith and in a commercially reasonable manner) that:

- (i) its performance under the Securities or its performance or that of any of its affiliates under any related Hedge Positions and/or Hedging Positions; or
- (ii) the performance of any of its affiliates under the Securities had such affiliate been an issuer of the Securities or under any related Hedge Positions had such affiliate been a party to any such Hedge Positions and/or Hedging Positions,

has or will become unlawful or impractical in whole or in part or there is a substantial likelihood of the same in the immediate future.

## (3) *Definitions*

"Non-scheduled Early Repayment Amount" means, on any day an amount in respect of each Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of that Security immediately prior to the Termination Date (as defined in paragraph (3)(b) below), taking into account the remaining time value of the relevant Security. When determining the Non-scheduled Early Repayment Amount, the Calculation Agent may, *inter alia*, also consider the probability of default of the Issuer or of the Guarantor based on the credit spreads quoted on the market or on the yields of bonds of the Issuer or of the Guarantor that are traded with sufficient liquidity at the time of determining the Non-scheduled Early Repayment Amount. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Non-scheduled Early Repayment Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

"**Optional Redemption Date**" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Sanction Rules" means any applicable law, rule, regulation, judgment, order, sanction, directive or designation of any governmental, administrative, legislative or judicial authority or power, in each case, relating to any economic or financial sanctions and

embargo programmes, including, but not limited to, those enacted, administered and/or enforced, from time to time, by (or by any agency or other authority of) the United States, the United Kingdom, the European Union (or any Member State thereof), Switzerland or the United Nations, and which financial sanctions and embargo programs may include (without limitation), those restrictions applicable to designated or blocked persons.

"Termination Amount in the case of an ordinary termination" is the amount allocated to the respective Optional Redemption Date in Part B (general terms) of the applicable Issue Specific Terms.

# "Termination Notice" means

- (a) with respect to an Ordinary Termination Right of the Issuer in accordance with paragraph (1) of this Section
  - (i) in the case of Securities where no Termination Notice Dates are set out in Part B (general terms) of the applicable Issue Specific Terms:

an irrevocable notice given by the Issuer to the Security Holders in accordance with Section 17 of the General Conditions that the Issuer will exercise its termination right, which notice shall specify the date on which the early redemption of the Securities as aforesaid is to be effected (the "Termination Date"), provided that if a Termination Period is specified in the applicable Issue Specific Terms, any such Termination Date must (i) be on a date which falls within the applicable Termination Period and (ii) not fall on a date which is earlier than the Business Day falling immediately after the Termination Notice Time Span in accordance with Section 17 of the General Conditions and provided further that if such date is not a Business Day, then the relevant Termination Date will be the next following Business Day. The exercise by the Issuer of the termination right shall not preclude Security Holders from selling or transferring or, if applicable, exercising all or any part of their holding of Securities, providing that any such exercise, sale or transfer, as the case may be, is effected no later than the third Business Day immediately preceding the Termination Date.

(ii) in the case of Securities where Termination Notice Dates are set out in Part B (general terms) of the applicable Issue Specific Terms:

an irrevocable notice given by the Issuer to the Security Holders in accordance with Section 17 of the General Conditions on a Termination Notice Date that the Issuer will exercise its termination right, which notice shall specify the relevant Optional Redemption Date on which the early redemption of the Securities is to be effected (the "**Termination Date**"). The Termination Notice shall also replicate the relevant Termination Amount in the case of an ordinary termination. The exercise by the Issuer of the termination right shall not preclude Security Holders from selling or transferring or, if applicable, exercising all or any part of their holding of Securities, providing that any such exercise, sale or transfer, as the

case may be, is effected no later than the third Business Day immediately preceding the Termination Date.

(b) with respect to termination right following a change in law in accordance with paragraph (2) of this Section:

an irrevocable notice given by the Issuer to the Security Holders in accordance with Section 17 of the General Conditions that the Issuer will exercise its termination right, which notice shall specify the date on which the early redemption of the Securities as aforesaid is to be effected (the "**Termination Date**").

"**Termination Notice Date**" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms. If the Termination Notice Date is no Calculation Date the Termination Notice Date will be postponed to the next following Calculation Date.

"**Termination Notice Time Span**" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"**Termination Period**" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

# Section 13 (Transferability, Security Holder)

# (1) Transferability

Each German Security is transferable in accordance with applicable law and any rules and procedures for the time being of any Clearing System through whose books such German Security is transferred.

In the case of English Securities transfers of interests in a Global ICSD Registered Note will be effected by the relevant ICSD and (in turn) by direct and (if appropriate) indirect participants in such ICSD acting on behalf of transferors and transferees of such beneficial interests.

Transfers of Nordic Registered Securities and Euroclear Netherlands Registered Securities and Euroclear France Registered Securities may be effected only through the Clearing System(s) in which the Securities to be transferred are held. Title will pass in the case of (i) Euroclear Sweden Registered Securities, upon entry in the Euroclear Sweden Register and in accordance with the SFIA Act, (ii) VPS Registered Securities, upon entry in the VPS Register and in accordance with the VPS Rules, (iii) in the case of Euroclear Finland Registered Securities, upon entry in the Euroclear Finland Register and in accordance with the Finnish Regulations, (iv) in the case of Euroclear Netherlands Registered Securities, upon entry in the Euroclear Netherland Register and in accordance with the Euroclear Netherlands Rules, and (v) in the case of Euroclear France Registered Securities, upon registration of the transfer in the accounts of Euroclear France

Accountholders in accordance with the French Monetary and Financial Code and the Euroclear France Rules.

Any number of Securities may, subject to the foregoing provisions of this Section 13 (1), be transferred in one or more transaction in the Securities unless (a) the Securities are listed on a stock exchange and the rules of that stock exchange govern the number of Securities which may be transferred in a transaction in the Securities, in which case the applicable rules of that stock exchange, as amended from time to time, must be complied with, or (b) the applicable Issue Specific Terms specifies a "Minimum Trading Number", in which case the smallest number of Securities that may be transferred in a single transaction in the Securities shall be the Minimum Trading Number (and, if a "Permitted Trading Multiple" is also specified in the applicable Issue Specific Terms, the smallest number of Securities that may be transferred in a transaction in the Securities shall be the Minimum Trading Number, or, if more than the Minimum Trading Number of Securities is to be transferred in a transaction in the Securities, the Securities must be transferred in a number equal to the sum of the Minimum Trading Number plus an integral multiple of the Permitted Trading Multiple), or such other Minimum Trading Number or other Permitted Trading Multiple as the Issuer may from time to time notify the Security Holders in accordance with Section 17 of the General Conditions.

### (2) Security Holder

#### (a) Global Bearer Note - German Securities

In respect of Securities represented by a Global Bearer Note, if the Governing Law is specified in the Issue Specific Terms to be German Law, the terms "Security Holders" will, subject to Section 13(2)(c) of the General Conditions, be construed to mean those persons recognised as the legal owner of the Securities pursuant to German law.

### (b) Global ICSD Registered Note - English Securities

In the case of English Securities represented by a Global ICSD Registered Note, the term "Security Holder" will be construed to mean the person for the time being appearing in the books of any ICSD as the holder of a particular number or Nominal and/or Calculation Amount of such Securities (in which regard any certificate or document issued by the relevant ICSD as to the number or Nominal and/or Calculation Amount, as the case may be, of such Securities standing to the account of any person shall be conclusive and binding for all purposes save in the case of manifest error or proven error) shall be treated by the Issuer, the Guarantor, the Calculation Agent, the Principal Programme Agent, each ICSD and all other persons dealing with such person as the holder thereof and as the person entitled to exercise the rights represented thereby for all purposes other than with respect to the payment of the Settlement Amount or any interest in respect of such number or Nominal and/or Calculation Amount, as the case may be, of such Securities, for which purpose the nominee for the common depositary in respect of the relevant Global ICSD Registered Note (the "Common Nominee") shall be treated by the Issuer, the Guarantor, the Calculation Agent, the Principal Programme Agent and all other persons dealing with such person as the holder of such number or Nominal and/or Calculation Amount, as the case may be, of such Securities in accordance with and subject to

the terms of the relevant Global ICSD Registered Note and the expression "Security Holder" and related expressions shall be construed accordingly, notwithstanding any notice to the contrary, except that (i) Euroclear shall not be treated as the Security Holder of any Security held in an account with Clearstream Luxembourg, on behalf of Euroclear Belgium's accountholders and (ii) Clearstream Luxembourg shall not be treated as the Security Holder of any Security held in an account with Euroclear on behalf of Clearstream Luxembourg's accountholders. The foregoing provisions of this Section 13(2)(b) shall be subject to Section 13(2)(c) of the General Conditions.

The Issuer will cause a register ("ICSD Registered Note Register") to be kept at the specified office of the Registrar outside the United Kingdom on which will be entered the name and address of the Common Nominee and, from time to time, any other holders of the Securities and the particulars of the Securities held by them.

(c) Nordic Registered Securities and Euroclear Netherlands Registered Securities and Euroclear France Registered Securities:

Notwithstanding the foregoing provisions of Section 13(2)(a) and Section 13(2)(b) of the General Conditions, in respect of any German Securities and English Securities which, in addition, constitute:

- (i) Euroclear Sweden Registered Securities, the person for the time being shown in the Euroclear Sweden Register shall be treated for all purposes by the Issuer, the Principal Programme Agent, the Swedish Paying Agent, any Agents, Euroclear Sweden and all other persons dealing with such person as the holder thereof (a "Euroclear Sweden Security Holder") and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary;
- (ii) VPS Registered Securities, the person for the time being shown in the VPS Register shall, in accordance with the VPS Rules, be treated for all purposes by the Issuer, the Principal Programme Agent, the Norwegian Paying Agent, any Agents, VPS and all other persons dealing with such person as the holder thereof (a "VPS Security Holder") and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary;
- (iii) Euroclear Finland Registered Securities, the person for the time being shown in the Euroclear Finland Register shall be treated for all purposes by the Issuer, the Principal Programme Agent, the Finnish Paying Agent, any Agents, Euroclear Finland and all other persons dealing with such person as the holder thereof (an "Euroclear Finland Security Holder") and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary;
- (iv) Euroclear Netherlands Registered Securities, the person for the time being shown in the Euroclear Netherlands Register shall be treated for all purposes by the Issuer, the Principal Programme Agent, the Dutch Paying Agent, any Agents, Euroclear Netherlands and all other persons dealing with such person as the holder thereof (an "Euroclear Netherlands Security Holder") and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary; and

(v) Euroclear France Registered Securities, the person for the time being shown in the books of the Euroclear France Accountholder shall be treated for all purposes by the Issuer, the Principal Programme Agent, the French Paying Agent, any Agents, Euroclear France and all other persons dealing with such person as the holder thereof (an "Euroclear France Security Holder") and as the person entitled to exercise the rights represented thereby notwithstanding any notice to the contrary.

# Section 14 (Agents)

- The "Calculation Agent", the "Principal Programme Agent", the "Fiscal Agent", the "Registrar", the "Norwegian Paying Agent", the "Swedish Paying Agent", the "Finnish Paying Agent", the "Dutch Paying Agent", the "French Paying Agent" and/or the "Additional Agent(s)" are set out in Part B (general terms) of the applicable Issue Specific Terms. The Issuer has the right at any time to replace the Calculation Agent, the Principal Programme Agent or any Agent with a different bank or, to the extent permitted by law, by a financial services institution with registered seat in one of the member states of the European Union, to appoint one or several additional calculation agents or payment agents and to revoke their appointment. Any replacement, appointment and revocation of the Calculation Agent, the Principal Programme Agent or, as the case may be, any other Agent as aforesaid will be announced in accordance with Section 17 of the General Conditions.
- (2) Each of the Calculation Agent, the Principal Programme Agent and any other Agent(s) have the right at all times to resign from their office as Calculation Agent, Principal Programme Agent or, as the case may be, Agent. The resignation becomes effective only upon appointment of a different bank or, to the extent permitted by law, a financial services institution with registered seat in one of the member states of the European Union as Calculation Agent, the Principal Programme Agent or Agent by the Issuer. Resignation and appointment are announced in accordance with Section 17 of the General Conditions.
- (3) The Calculation Agent, the Principal Programme Agent and any other Agent(s) act, in each case, solely as agents of the Issuer and do not assume any obligation or duty to, or any relationship of agency or trust for or with, the Security Holders. The Calculation Agent, the Principal Programme Agent and any other Agent shall be exempt from the restrictions of self-dealing.
- (4) None of the Issuer, the Calculation Agent, the Principal Programme Agent or any other Agent is required to verify the authorization of those persons exercising Securities.

# Section 15 (Substitution of Issuer)

### (1) Substitution of Issuer for German Securities

In respect of German Securities the following provisions apply:

The Issuer has the right at all times, without the consent of the Security Holders, to substitute a different company (the "New Issuer"), including the Guarantor, in the place of the Issuer in respect to all obligations from or in connection with the Securities, provided that:

- (a) the New Issuer assumes all obligations of the Issuer under or in connection with the Securities;
- (b) the New Issuer has committed itself to indemnify each Security Holder in respect to all taxes, charges, assessments, or fees of public authorities, which are imposed on it as a result of the replacement of the Issuer with the New Issuer;
- (c) the Issuer unconditionally and irrevocably guarantees all obligations of the New Issuer under the Securities for the benefit of the Security Holders and provided that the text of that guarantee is published in accordance with Section 17 of the General Conditions;
- (d) all measures, conditions, and steps that have to be initiated, fulfilled, and carried out (including obtaining necessary consents), in order to ensure that the Securities constitute lawful, effective, and binding obligations of the New Issuer, have been initiated, fulfilled, and carried out and the Securities are legally valid and effective without restrictions; and
- (e) the Guarantor (unless it is the New Issuer itself) unconditionally guarantees the obligations of the New Issuer under the Securities.

# (2) Substitution of Issuer for English Securities

In respect of English Securities the following provisions apply:

The Issuer is entitled at any time, without the consent of the Security Holders, to substitute the Issuer with another company (the "**New Issuer**"), including the Guarantor, in respect of all its obligations under or in relation to any Series of Securities, provided that:

- (a) the New Issuer assumes, by means of a deed poll substantially in the form provided for in the Programme Agreement, all obligations of the Issuer arising from or in connection with the relevant Series of Securities (the "Assumption");
- (b) the Assumption does not have any adverse legal and tax consequences for Security Holders of the relevant Series of Securities;
- (c) the New Issuer provides an indemnity in favour of the Security Holders of the relevant Series of Securities in relation to any additional Taxes that become payable solely as a result of the substitution of the Issuer for the New Issuer;
- (d) the New Issuer has obtained all necessary approvals from any regulatory authorities in order that the New Issuer can fulfil all obligations arising from or in connection with the relevant Series of Securities; and

(e) the Guarantor (except in the case where it is the New Issuer itself) unconditionally guarantees the fulfilment of the obligations of the New Issuer in respect of the relevant Series of Securities.

### (3) References to Issuer

In the event that the Issuer is replaced by the New Issuer, any reference to the Issuer in the Conditions shall then be considered as a reference to the New Issuer.

# (4) <u>Publication and consequences of Substitution</u>

The substitution of the Issuer shall be announced in accordance with Section 17 of the General Conditions. After the substitution has been effected in accordance with the relevant provisions of this Section, the New Issuer shall replace the Issuer in all respects and the Issuer shall be released from all obligations under and in respect of the Securities, subject to Section 15(1)(c) of the General Conditions.

# Section 16 (Further Issuances of Securities, Purchase of Securities, Cancellation)

# (1) <u>Further Issuances of Securities</u>

The Issuer may from time to time, without the consent of the Security Holders, create and issue further Securities having the same terms and conditions as the Securities (except for, in certain cases, the Issue Date, the Issue Size and the Settlement Date) and reference to "Securities" shall be construed accordingly.

# (2) Purchases of Securities

The Issuer and the Guarantor and any of their respective subsidiaries may at any time purchase Securities at any price in the open market or otherwise. Such Securities may be held, reissued, resold or cancelled, all at the discretion of the Issuer.

# (3) <u>Cancellation</u>

All Securities exercised or, as the case may be, redeemed in full shall be cancelled forthwith and may not be reissued or resold. Securities repurchased as aforesaid may, at the discretion of the Issuer in accordance with paragraph (2) of this Section, be cancelled.

# Section 17 (Notices)

# (1) <u>Publication</u>

Publications concerning the Securities will, subject to paragraph (2) and (6) of this Section, be made on the "Website" set out in the applicable Issue Specific Terms (or on any other website on which the Issuer elects to publish announcements having given prior notice of at least six weeks in accordance with the provisions of these Conditions). To

the extent that required by law, or exchange regulations or if the Issuer otherwise considers it practical and helpful to Security Holders, announcements will be made, subject to paragraph (2) and (6) of this Section, in addition in a newspaper of general circulation in the Offer States. Any such announcement will be deemed to have been made on the date of first publication of such announcement.

# (2) Notice via Clearing System

The Issuer has, in respect of any Securities (which are not represented by a Global ICSD Registered Note), the right, in addition to the publication of a notice pursuant to paragraph (1) of this Section to deliver a notice to the relevant Clearing System for communication by the Clearing System to the Security Holders. Even if the notice is communicated by the relevant Clearing System the first publication pursuant to paragraph (1) sentence 3 remains decisive for the time of effectiveness of the notice.

The Issuer has the right in respect of any English Securities represented by a Global ICSD Registered Note, in lieu of the publication of a notice pursuant to paragraph (1) of this Section, to deliver to the ICSDs a notice for communication to the Security Holders in accordance with the customary rules of the ICSDs. Any such notice shall be deemed to have been given to the holders of beneficial interests in the Global ICSD Registered Note on the day immediately following the day on which such notice was given to the ICSDs.

# (3) Luxembourg Stock Exchange Publication

If and for so long as any Securities are listed on the official list of the Luxembourg Stock Exchange and the rules of the exchange so require, notices to the relevant Security Holders will be published, in addition to the requirements of paragraph (1) and (2) of this Section, on the Luxembourg Stock Exchange's website, www.bourse.lu.

### (4) London Stock Exchange Publication

In relation to Securities admitted to the official list of the Financial Services Authority and to trading on the London Stock Exchange's Regulated Market, all notices to Security Holders will be valid if published in one daily newspaper of general circulation in the United Kingdom (expected to be the Financial Times).

### (5) <u>Italian Stock Exchange Publication</u>

If and for so long as the Securities are listed on the Italian Stock Exchange and the rules of the exchange so require, notices to the Security Holders will be published on the Italian Stock Exchange's website, www.borsaitaliana.it.

### (6) *Nordic Registered Securities*

With respect to Nordic Registered Securities, the Issuer shall, in respect of this Section 17 only, only comply with the following obligations set out in this paragraph 6 of this Section:

In respect of Euroclear Sweden Registered Securities, the Issuer may either publish information and notices in at least one Swedish daily newspaper with nationwide coverage in the Kingdom of Sweden or send such information and notices to the Swedish Paying Agent who (at the expense of the Issuer) will, as soon as reasonably possible, publish the information and notices in at least one Swedish daily newspaper with nationwide coverage in the Kingdom of Sweden. Notwithstanding any confidentiality obligations, the Issuer shall be entitled to obtain information (including information on Euroclear Sweden Security Holders) from the Euroclear Sweden Register, and Euroclear Sweden shall be entitled to provide such information to the Issuer and to the Swedish Paying Agent, respectively.

In respect of VPS Registered Securities, the Issuer may either publish information and notices in at least one Norwegian daily newspaper with nationwide coverage in the Kingdom of Norway or send such information and notices to the Norwegian Paying Agent who (at the expense of the Issuer) will, as soon as reasonably possible, publish the information and notices in at least one Norwegian daily newspaper with nationwide coverage in the Kingdom of Norway. Notwithstanding any confidentiality obligations, the Issuer shall be entitled to obtain information (including information on VPS Security Holders) from the VPS Register, and VPS shall be entitled to provide such information to the Issuer and to the Norwegian Paying Agent, respectively.

In respect of Euroclear Finland Registered Securities, the Issuer may either publish information and notices in at least one Finnish daily newspaper with nationwide coverage in the Republic of Finland or send such information and notices to the Finnish Paying Agent who (at the expense of the Issuer) will as soon as reasonably possible, publish the information and notices in at least one Finnish daily newspaper with nationwide coverage in the Republic of Finland. Notwithstanding any confidentiality obligations, the Issuer shall be entitled to obtain information (including information on Euroclear Finland Security Holders) from the Euroclear Finland Register, and Euroclear Finland shall be entitled to provide such information to the Issuer and to the Finnish Paying Agent, respectively.

# Section 18 (Modifications)

# (1) <u>Modifications in the case of German Securities</u>

In respect of German Securities the following provisions apply:

(a) The Issuer has the right and, if the correction is advantageous for the Security Holder, the obligation after becoming aware thereof to correct obvious spelling and calculation errors in the Issue Specific Terms without the consent of the Security Holders regarding the determination of the Settlement Amount. An error is obvious if it is recognisable to an investor with knowledge of the applicable type of Securities, particularly taking into account the Issue Price and the other factors that determine the value of the Security. In order to determine the obviousness and the applicable understanding of a knowledgeable investor, the Issuer

- may involve an expert. Corrections to the Issue Specific Terms are published in accordance with Section 17 of the General Conditions.
- (b) The Issuer has the right to modify any contradictory provisions in the Conditions without the consent of the Security Holders. The modification may only serve to clarify the contradiction and not effect any other changes to the Conditions. The Issuer furthermore has the right to supplement incomplete provisions in the Conditions without the consent of the Security Holders. The supplement may serve only to complete the provision and may not effect any other changes to the Conditions. Modifications pursuant to sentence 1 and supplements pursuant to sentence 3 are permitted only if they are reasonable for the Security Holder taking into account the economic purpose of the Conditions, particularly if they do not have a material adverse effect on the interests of the Security Holders. Modifications or supplements to the Conditions are published in accordance with Section 17 of the General Conditions.
- In the case of a correction pursuant to sub-paragraph (a) or modification or sup-(c) plement pursuant to sub-paragraph (b), the Security Holder may terminate the Securities within four weeks after the notification of the correction or modification or supplement with immediate effect by written notice of termination to the Principal Programme Agent, if as a consequence of the correction or modification or supplement, the content or scope of the Issuer's performance obligations changes in a manner that is not foreseeable to the Security Holder and detrimental to it. The Issuer will inform the Security Holder in the notification pursuant to sub-paragraph (a) or sub-paragraph (b) regarding the possible termination right including the election right of the Security Holder regarding the Termination Amount. The termination date for the purposes of this sub-paragraph (c) (the "Correction Termination Date") is the date on which the Principal Programme Agent receives the termination notice. An effective exercise of the termination by the Security Holder requires receipt of a duly executed termination statement containing the following information: (i) name of the Security Holder, (ii) designation and number of Securities to be terminated, and (iii) designation of a suitable bank account to which the Termination Amount is to be credited.
- (d) To the extent that a correction pursuant to sub-paragraph (a) or modification or supplement pursuant to sub-paragraph (b) is not possible, both the Issuer and each Security Holder may terminate the Securities, if the preconditions for rescission in accordance with Sections 119 et seq. German Civil Code (BGB) exist vis-à-vis the respective Security Holders or vis-à-vis the Issuer. The Issuer may terminate all but not some only of the Securities by notification in accordance with Section 17 of the General Conditions to the Security Holders; the termination must contain information about the Security Holder's election right regarding the Termination Amount. The Security Holder may terminate the Securities vis-à-vis the Issuer by delivery to the Principal Programme Agent of its termination notice; regarding the content of the termination notice, the rule in paragraph (3) sentence 4 applies. The termination by a Security Holder does not have any effect vis-à-vis the other Security Holders. The Termination Date for purposes

of this sub-paragraph (d) (the "Error Termination Date") is, in the case of a termination by the Issuer, the date on which the notification is given or, in the case of a termination by the Security Holder, the date on which the Principal Programme Agent receives the termination notice. The termination must occur without undue delay once the party entitled to terminate has become aware of the reason for termination.

In the case of an effective termination pursuant to sub-paragraph (c) or sub-par-(e) agraph (d), the Issuer will pay a Termination Amount to the Security Holders. The Termination Amount equals either (i) the most recently determined market price of a Security (as defined below) determined by the Calculation Agent or (ii) upon request of the Security Holder, the purchase price paid by the Security Holder when acquiring the Security, if the Security Holder produces evidence thereof to the Principal Programme Agent. If the Securities are listed, the Market Price (the "Market Price") of the Securities corresponds to the arithmetic mean of the cash settlement prices (*Kassakurse*), which were published on the three (3) Business Days immediately preceding the Correction Termination Date or the Error Termination Date (each a "Termination Date") at the "Securities Ex**change**" set out in the applicable Issue Specific Terms. If any of these Business Days is a Disrupted Day pursuant to the Underlying Specific Provisions, the cash settlement price on that day is not taken into account when determining the arithmetic mean. If no cash settlement prices were published on all three (3) Business Days or all of those days are Disrupted Days pursuant to the Underlying Specific Provisions, the Market Price corresponds to an amount, which is determined by the Calculation Agent in its reasonable discretion taking into account the market conditions existing on the Business Day immediately prior to the Termination Date. If the Securities are not listed, the Market Price (the "Market Price") of the Securities corresponds to an amount, which is determined by the Calculation Agent in its reasonable discretion taking into account the market conditions existing on the Business Day immediately prior to the Correction Termination Date or the Error Termination Date (each a "Termination Date"). In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements, as determined by the Calculation Agent. The Issuer will transfer the Termination Amount within three (3) Business Days after the Termination Date to the Clearing System for credit to the accounts of the depositors of the Securities or in the case of a termination by the Security Holder to the account stated in the termination notice. If the Security Holder requests repayment of the purchase price after the Termination Date, the balance (the amount by which the purchase price exceeds the Market Price) is transferred thereafter. The requirements of Section 3 of the General Conditions concerning the payment terms apply accordingly. On payment of the Termination Amount, all rights of the Security Holders arising from the terminated Securities cease to have effect. This does not affect any

claims by the Security Holder for compensation of any negative interest pursuant to Section 122 paragraph 1 BGB, unless these claims are excluded due to the Security Holder's knowledge or grossly negligent ignorance of the reason for termination in accordance with Section 122 paragraph 2 BGB.

# (2) <u>Modifications in the case of English Securities</u>

In respect of English Securities the following provisions apply:

## (a) *Modifications*

In the case of English Securities, the Programme Agreement, the Agency Agreement, the Deed of Covenant and the Conditions may be amended by the Issuer with the approval of the Calculation Agent but without the consent of the Security Holders if, in the reasonable opinion of the Issuer and the Calculation Agent, the amendment (i) is of a formal, minor or technical nature, (ii) is made to correct a manifest or proven error or omission, or (iii) will not materially and adversely affect the interests of the Security Holders of the relevant Series as a class.

### (b) *Meetings of Security Holders*

The Programme Agreement and the Agency Agreement contain provisions for convening meetings of Security Holders to consider matters relating to the relevant Securities, including the modification of any provision of the General Conditions relating to a Series of Securities with the consent of the Issuer. Only Security Holders of outstanding Securities of the applicable Series (as defined in the Programme Agreement or, as the case may be, the Agency Agreement) will be eligible to participate in a meeting of Security Holders of that Series. Such a meeting shall be convened by the Issuer upon the request in writing of the relevant Security Holders holding not less than one-tenth of the aggregate principal amount of the outstanding Securities of that Series. The quorum at any meeting convened to vote on a resolution will be one or more persons holding or representing more than half of the aggregate principal amount of the outstanding Securities of that Series or, at any adjourned meeting, one or more persons holding or representing not less than one quarter of the aggregate principal amount of the outstanding Securities of the relevant Series. Any resolution duly passed at any such meeting shall be binding on all the Security Holders of the applicable Series, whether present or not.

### (c) Written resolution

A resolution in writing signed or electronically approved using the systems and procedures in place from time to time of an ICSD by or on behalf of all Security Holders of a relevant Series who for the time being are entitled to receive notice of a meeting of Security Holders of the relevant Series will take effect as if it were a resolution passed at a meeting of such Security Holders of the relevant

Series. Such a resolution in writing may be contained in one document or several documents in the same form, each signed by or on behalf of one or more Security Holders of the relevant Series or may be in the form of SWIFT or other electronic instructions as permitted by the rules and procedures of the relevant ICSD.

# Section 19 (Governing Law, Place of Jurisdiction, Process Agent)

# (1) <u>Securities governed by German law</u>

The form and content of German Securities and all rights and obligations set out in the Conditions, and any related non-contractual obligations, will, subject to Section 19 (3) of the General Conditions, be governed by, and construed in every respect in accordance with the laws of Germany.

Frankfurt am Main shall be the place of performance of the German Securities. Frankfurt am Main will, in addition, be the place of jurisdiction for all lawsuits or other proceedings from or in connection with the German Securities for merchants, legal persons under public law, or special assets (*Sondervermögen*) under public law, and person without a general place of jurisdiction in Germany. In the aforementioned cases, Frankfurt am Main is the exclusive place of jurisdiction for all lawsuits against the Issuer.

### (2) Securities governed by English law

English Securities and any non-contractual obligations arising out of or in connection with the English Securities are, subject to Section 19 (3) of the General Conditions, governed by, and shall be construed in accordance with, English law.

No person shall have any right to enforce any term or condition of the English Securities under the Contracts (Rights of Third Parties) Act 1999, but this does not affect any right or remedy of any person which exists or is available apart from that Act.

The courts of England are to have exclusive jurisdiction to settle any disputes which may arise out of or in connection with the English Securities (including a dispute relating to any non-contractual obligations arising out of or in connection with the English Securities).

# (3) <u>Nordic Registered Securities, Euroclear Netherlands Registered Securities and Euroclear France Registered Securities</u>

Notwithstanding the foregoing provisions of Section 19 (1) and Section 19 (2) of the General Conditions, the following provisions shall apply to German Securities and English Securities which also constitute Nordic Registered Securities or Euroclear Netherlands Registered Securities:

(a) in the case of Euroclear Finland Registered Securities, Finnish law and jurisdiction will be applicable with regard to the registration of such Securities in Euroclear Finland;

- (b) in the case of Euroclear Sweden Registered Securities, Swedish law and jurisdiction will be applicable with regard to the registration of Securities in Euroclear Sweden;
- in the case of VPS Registered Securities, Norwegian law and jurisdiction will be applicable with regard to the registration of Securities in VPS;
- (d) in the case of Euroclear Netherlands Registered Securities, Dutch law and jurisdiction will be applicable with regard to the registration of Securities in Euroclear Netherlands; and
- (e) in the case of Euroclear France Registered Securities, French law and jurisdiction will be applicable with regard to the registration of Securities in Euroclear France.

# (4) *Guarantee*

The Guarantee shall be governed by and construed in accordance with the laws of Germany.

### (5) Process Agent

The Guarantor appoints Goldman Sachs Bank Europe SE, Marienturm, Taunusanlage 9-10, 60329 Frankfurt am Main, Germany as its agent in Germany to receive, for it and on its behalf, service of process in any proceedings in Germany. Such service shall be deemed completed on delivery to the relevant process agent (whether or not, it is forwarded to and received by the Guarantor). If for any reason the relevant process agent ceases to be able to act as such or no longer has an address in Germany, the Guarantor irrevocably agree to appoint a substitute process agent and shall immediately notify Security Holders of such appointment in accordance with Section 17 of the General Conditions (*Notices*). Nothing shall affect the right to serve process in any manner permitted by law.

# Section 20 (Severability)

If any of the provisions of the Conditions is or becomes invalid or unenforceable in whole or in part, the validity and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. By purchasing any Securities, each Security Holder will be deemed to have agreed, in the circumstances referred to in this Section 20, to attempt to substitute, in accordance with Section 18 of the General Conditions, for any invalid or unenforceable provision a valid or enforceable provision which achieves to the greatest extent possible the same effect as would have been achieved by the invalid or unenforceable provision.

Section 21 (Prescription)

Claims against the Issuer or, as the case may be, the Guarantor for payment or delivery in respect of the English Securities shall be prescribed and become void unless made within five years from the Settlement Date and no claims shall be made after such date.

In the case of German Securities the period of presentation pursuant to § 801 section 1 sentence 1 of the German Civil Code ("BGB") is reduced to ten years. Any claim to receive payments under the German Securities, which has been presented within the period of presentation, will become time-barred after a period of two years starting at the end of the relevant period for presentation and four years in relation to the payment of coupon amounts starting at the end of the relevant period for presentation.

# **Annex to the General Conditions - Underlying Specific Provisions**

The Underlying Specific Provisions contain additional provisions in relation to the respective underlying set out in this Annex to the General Conditions. The Issue Specific Terms will specify which Underlying Specific Provisions apply to the respective Series of Securities. In relation to Italian Listed Securities (to the extent required by the rules of the relevant regulated market or multilateral trading facility), reference (if any) to "discretion" or "sole discretion" or "absolute discretion" shall be replaced by reference to "reasonable discretion as defined under Section 315 or Section 317 respectively of the German Civil Code (BGB)" and any determination by the Calculation Agent (or any other Agent(s)) shall be done with "reasonable discretion as defined under Section 315 or Section 317 respectively of the German Civil Code (BGB)".

# Annex to General Conditions - Share Linked Provisions

# Adjustment, Modification and Disruption Provisions for Share Linked Securities

- 1. Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days
- 1.1 Single Share and Reference Dates
- 1.2 Single Share and Averaging Reference Dates
- 1.3 Share Basket and Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day
- 1.4 Share Basket and Averaging Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day
- 1.5 Share Basket and Reference Dates Common Scheduled Trading Day but Individual Disrupted Day
- 1.6 Share Basket and Reference Dates Common Scheduled Trading Day and Common Disrupted Day
- 2. Fallback Valuation Date
- 3. Adjustments
- 3.1 Occurrence of a Potential Adjustment Event or adjustment to options on a Related Exchange
- 3.2 Occurrence of an Extraordinary Event
- 3.3 Occurrence of an Additional Disruption Event
- 3.4 Early Redemption
- 4. Correction of Underlying Price
- 5. Depositary Receipts Provisions
- 5.1 Application of Depositary Receipts Provisions
- 5.2 Termination of Deposit Agreement
- 6. Dividend Amounts
- 7. Delisting, Discontinuance or Modification of a Share that is a share of an Exchange Traded Fund
- 8. Definitions

# 1. Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days

## 1.1 Single Share and Reference Dates

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Share, and if the Calculation Agent determines that any Scheduled Reference Date in respect of such Share is not a Scheduled Trading Day or is a Disrupted Day, then the Reference Date for such Share shall be the first succeeding Scheduled Trading Day that the Calculation Agent determines is not a Disrupted Day in respect of such Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Share immediately following such Scheduled Reference Date is a Disrupted Day for such Share. In that case:

- (a) the last consecutive Scheduled Trading Day shall be deemed to be the Reference Date for such Share, notwithstanding the fact that such day is a Disrupted Day for such Share; and
- (b) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that last consecutive Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (b) shall be deemed to be the Underlying Price in respect of the relevant Reference Date,

provided that:

if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for the relevant Share shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for such Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

# 1.2 Single Share and Averaging Reference Dates

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Share, and, if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of such Share is not a Scheduled Trading Day or is a Disrupted Day and, if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is:

(a) "Omission", then such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date, provided that, if through the operation of this provision there would not be any Averaging Reference Dates, then the Averaging Reference Date for such Share shall be the first succeeding Scheduled Trading Day following the final Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Share immediately following such final Scheduled Averaging Reference Date is a Disrupted Day for such Share. In that case:

- (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Share, notwithstanding the fact that such day is a Disrupted Day for such Share; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date;
- (b) "Postponement", then the relevant Averaging Reference Date for such Share shall be the first succeeding Scheduled Trading Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day for such Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Share immediately following such Scheduled Averaging Reference Date is a Disrupted Day for such Share. In that case:
  - (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Share, notwithstanding the fact that such day is a Disrupted Day for such Share; and
  - (ii) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date. For the avoidance of doubt, an Averaging Reference Date determined in accordance with this Share Linked Provision 1.2 in respect of a Scheduled Averaging Reference Date in respect of another Scheduled Averaging Reference Date falls, whether or not such latter Averaging Reference Date was also determined in accordance with this Share Linked Provision 1.2;
- (c) "Modified Postponement", then the relevant Averaging Reference Date shall be the first succeeding Valid Date. If the first succeeding Valid Date has not occurred as of the relevant Valuation Time on the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Averaging

Reference Date that, but for the occurrence of another Averaging Reference Date or a Disrupted Day for such Share, would have been the relevant Averaging Reference Date, then:

- (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Share, notwithstanding the fact that such day is already an Averaging Reference Date or is a Disrupted Day for such Share; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date),

provided that,

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Averaging Reference Date for the relevant Share shall be the Scheduled Averaging Reference Date, notwithstanding the fact that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day for such Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Averaging Reference Date, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date); and
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day in respect of such Share and, Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then "**Postponement**" will apply.
- 1.3 Share Basket and Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Share Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Trading Day and Individual Disrupted Day)" applies, and if the Calculation Agent determines that any Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for any Basket Share, then:

- (a) if the Calculation Agent determines that such Scheduled Reference Date for any other Basket Share is a Scheduled Trading Day that is not a Disrupted Day, then the Reference Date for such Basket Share shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for a Basket Share, then the Reference

Date for such Basket Share shall be the first succeeding Scheduled Trading Day which the Calculation Agent determines is not a Disrupted Day for such Basket Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Reference Date is a Disrupted Day for such Basket Share. In that case:

- (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Basket Share, notwithstanding the fact that such day is a Disrupted Day for such Basket Share; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the value for such Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of such Reference Date,

### provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Share shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for any Basket Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

# 1.4 Share Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Share Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Trading Day and Individual Disrupted Day)" applies, and, if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of any Basket Share is not a Scheduled Trading Day or is a Disrupted Day for such Basket Share and:

- (a) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "Omission", such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date for each Basket Share, provided that, if through the operation of this provision there would not be any Averaging Reference Dates, then the sole Averaging Reference Date for each Basket Share shall be determined by reference to the final Scheduled Averaging Reference Date as follows:
  - (i) for each Basket Share for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a

- Disrupted Day, the Averaging Reference Date for such Basket Share shall be such final Scheduled Averaging Reference Date; and
- (ii) for each Basket Share for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day, then the Averaging Reference Date for such Basket Share shall be the first succeeding Scheduled Trading Day following such final Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Basket Share immediately following such final Scheduled Averaging Reference Date is a Disrupted Day for such Basket Share. In that case:
  - (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Share, notwithstanding the fact that such day is a Disrupted Day for such Basket Share; and
  - (B) the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date;
- (b) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Postponement**", then:
  - (i) for each Basket Share for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a Disrupted Day, the Averaging Reference Date for such Basket Share shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Share for which the Calculation Agent determines that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day, then the Averaging Reference Date for such Basket Share shall be the first succeeding Scheduled Trading Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Share immediately following such Scheduled Averaging Reference Date is a Disrupted Day for such Basket Share. In that case:
    - (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference

- Date for such Basket Share, notwithstanding the fact that such day is a Disrupted Day for such Basket Share; and
- (B) the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date. For the avoidance of doubt, an Averaging Reference Date determined in accordance with this Share Linked Provision 1.4 in respect of a Scheduled Averaging Reference Date may fall on the same day that another Averaging Reference Date in respect of another Scheduled Averaging Reference Date falls, whether or not such latter Averaging Reference Date was also determined in accordance with this Share Linked Provision 1.4;
- (c) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Modified Postponement**", then:
  - (i) for each Basket Share for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a Disrupted Day, the Averaging Reference Date for such Basket Share shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Share for which the Calculation Agent determines that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day, the relevant Averaging Reference Date shall be the first succeeding Valid Date. If the first succeeding Valid Date has not occurred as of the relevant Valuation Time on the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Averaging Reference Date that, but for the occurrence of another Averaging Reference Date or a Disrupted Day for such Basket Share, would have been the relevant Averaging Reference Date, then:
    - (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Share, notwithstanding the fact that such day is already an Averaging Reference Date or is a Disrupted Day for such Basket Share; and
    - (B) the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date,

provided that:

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Averaging Reference Date for each Basket Share shall be the Scheduled Averaging Reference Date, notwithstanding the fact that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day for any Basket Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for each Basket Share on each Averaging Reference Date, taking into account any relevant market conditions at the time of such determination (and such determination by the Calculation Agent pursuant to this paragraph (d) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date); and
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day in respect of any Basket Share, and Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then "**Postponement**" will apply.

# 1.5 Share Basket and Reference Dates – Common Scheduled Trading Day but Individual Disrupted Day

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Share Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day but Individual Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines that any Scheduled Reference Date is a Common Scheduled Trading Day that is not a Disrupted Day for each Basket Share, then the Reference Date for each Basket Share shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that any Scheduled Reference Date is not a Common Scheduled Trading Day, the Reference Date for each Basket Share shall be the first succeeding Common Scheduled Trading Day following such Scheduled Reference Date;
- (c) if the Calculation Agent determines that either (I) any Scheduled Reference Date is a Common Scheduled Trading Day, but is a Disrupted Day for one or more Basket Shares, or (II) if paragraph (b) above applies, the relevant Common Scheduled Trading Day immediately following a Scheduled Reference Date is a Disrupted Day for one or more Basket Shares, then, in respect of (I) and (II), the following provisions shall apply:
  - (i) if the Calculation Agent determines that such Common Scheduled Trading Day is not a Disrupted Day for any Basket Share, then the Reference Date for such Basket Share shall be such Common Scheduled Trading Day;
  - (ii) if the Calculation Agent determines that such Common Scheduled Trading Day is a Disrupted Day for a Basket Share, then the Reference Date for such Basket Share shall be the first succeeding Scheduled Trading Day which the Calculation Agent determines is not a Disrupted Day for such Basket Share, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in

number to the Maximum Days of Disruption immediately following such Common Scheduled Trading Day is a Disrupted Day for such Basket Share. In that case:

- (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Basket Share, notwithstanding the fact that such day is a Disrupted Day for such Basket Share; and
- (B) the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination, and such value as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price for such Basket Share in respect of the relevant Reference Date.

### provided that:

(iii) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Share shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Common Scheduled Trading Day or is a Disrupted Day for any Basket Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for such Basket Share on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

# 1.6 Share Basket and Reference Dates – Common Scheduled Trading Day and Common Disrupted Day

Where the Share Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Share Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines that any Scheduled Reference Date is a Common Scheduled Trading Day that is not a Disrupted Day for each Basket Share, then the Reference Date for each Basket Share shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that any Scheduled Reference Date is not a Common Scheduled Trading Day or is a Disrupted Day for any Basket Share, then the Reference Date for each Basket Share shall be the first succeeding Common Scheduled Trading Day following such Scheduled Reference Date which the Calculation Agent determines is not a Disrupted Day for each Basket Share, unless the Calculation Agent determines that each of the consecutive Common Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Reference Date is a Disrupted Day for one or more Basket Shares. In that case:

- the Common Scheduled Trading Day which falls a number of Common Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be such Reference Date for each Basket Share, notwithstanding the fact that such day is a Disrupted Day for one or more Basket Shares, (such Basket Shares being "Affected Basket Shares" for such Reference Date, and each such Basket Share being an "Affected Basket Share" for such Reference Date);
- (ii) for each Basket Share other than an Affected Basket Share, the relevant Underlying Price shall be determined by reference to the relevant screen pages by the Calculation Agent at the applicable Valuation Time on that Common Scheduled Trading Day; and
- (iii) for each Affected Basket Share, the Calculation Agent shall, in its reasonable discretion, determine the value for such Affected Basket Share on that Common Scheduled Trading Day, taking into account any relevant market conditions at the time of such determination (and such determination by the Calculation Agent pursuant to this paragraph (iii) shall be deemed to be the Underlying Price of such Affected Basket Share in respect of such Reference Date),

# provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Share shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for any Basket Share, and the Calculation Agent shall, in its reasonable discretion, determine the value for each Basket Share on that Reference Date, taking into account any relevant market conditions at the time of such determination (and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date).

## 2. Fallback Valuation Date

Notwithstanding any other terms of these Share Linked Provisions, if a Fallback Valuation Date is specified in the relevant Final Terms to be applicable to any Reference Date or Averaging Reference Date (any such date, a "Relevant Date") for a Share (including a Basket Share) (an "Affected Share"), and if, following adjustment of such Relevant Date pursuant to Share Linked Provision 1 (Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days) above the Relevant Date would otherwise fall after the specified Fallback Valuation Date in respect of such Affected Share, then such Fallback Valuation Date shall be deemed to be such Relevant Date for such Affected Share. If such Fallback Valuation Date is not a Scheduled Trading Day or a Common Scheduled Trading Day, as applicable, or is a Disrupted Day in respect of such Affected Share, then the Calculation Agent shall, in its reasonable discretion, determine the value for that Affected Share on the Fallback Valuation Date, and such determination by the Calculation Agent pursuant to this Share Linked Provision

2 shall be deemed to be the Underlying Price in respect of the relevant Reference Date or Averaging Reference Date.

## 3. Adjustments

# 3.1 Occurrence of a Potential Adjustment Event or adjustment to options on a Related Exchange

Following the determination by the Calculation Agent that either (a) a Potential Adjustment Event has occurred or (b) any adjustment has been made to the exercise, settlement payment or any other terms of listed options or futures contracts of the relevant Shares traded on a Related Exchange or an Options Exchange, as applicable, the Calculation Agent will determine whether such Potential Adjustment Event or adjustment to the relevant terms of listed options or futures contracts on the relevant Shares traded on a Related Exchange or an Options Exchange, as applicable, has a diluting or concentrative effect on the theoretical value of the Shares and, if so, will (i) make the corresponding adjustment, if any, to any one or more of the terms of the Share Linked Securities, including without limitation, any variable or term relevant to the exercise, settlement or payment under such Share Linked Securities, as the Calculation Agent determines appropriate to account for that diluting or concentrative effect (provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate, or liquidity relative to such Shares), and (ii) determine the effective date of that adjustment.

When making changes following the occurrence of a Potential Adjustment Event, the Calculation Agent may, but need not, determine the appropriate adjustment by reference to the adjustment in respect of such Potential Adjustment Event made by a Related Exchange or an Options Exchange to options or futures on the Shares traded on that Related Exchange or Options Exchange, as relevant.

If the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this paragraph Share Linked Provision 3.1 would produce a commercially reasonable result, it may direct the Issuer to redeem the Share Linked Securities under Share Linked Provision 3.4 (*Early Redemption*) below.

# 3.2 Occurrence of an Extraordinary Event

If an Extraordinary Event occurs in relation to any Share, the consequences shall be as set out in paragraphs (a) to (d) below (provided that, if a Share is a share of an Exchange Traded Fund, Share Linked Condition 7 (*Delisting, Discontinuance or Modification of a Share that is a share of an Exchange Traded Fund*) shall apply in addition to the paragraphs (a) to (d) below):

(a) the Calculation Agent may determine the appropriate adjustment, if any, to be made to any one or more of the terms of the Share Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Share Linked Securities, as the Calculation Agent determines appropriate to account for the Extraordinary Event and determine the effective date of that adjustment. The relevant adjustments may include, without limitation, adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to the Shares or to the Share Linked Securities. The Calculation Agent may (but need not) determine the appropriate adjustment by reference to the adjustment in respect of such Extraordinary

- Event made by any Options Exchange to options on the Shares traded on that Options Exchange; or
- (b) following each adjustment to the settlement terms of options on the Shares traded on any Options Exchange, the Calculation Agent will make the appropriate adjustment, if any, to any one or more of the terms of the Share Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Share Linked Securities, as the Calculation Agent determines appropriate, which adjustment will be effective as of the date determined by the Calculation Agent to be the effective date of the corresponding adjustment made by the Options Exchange. If options on the Shares are not traded on the Options Exchange, the Calculation Agent will make such adjustment, if any, to any one or more of the terms of the Share Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Share Linked Securities, as the Calculation Agent determines appropriate, with reference to the rules of and precedents (if any) set by the Options Exchange to account for the Extraordinary Event that in the determination of the Calculation Agent would have given rise to an adjustment by the Options Exchange if such options were so traded; or
- (c) the Calculation Agent may direct the Issuer to redeem all, but not some only, of the Share Linked Securities under Share Linked Provision 3.4 (*Early Redemption*) below; or
- (d) if Part B (general terms) of the applicable Issue Specific Terms provide that "Share Substitution" is applicable upon the occurrence of an Extraordinary Event, then on or after the relevant Merger Date or Tender Offer Date or the date of the Delisting, Insolvency, Nationalisation, or where the Share is a share of an Exchange Traded Fund, an Extraordinary Fund Event, the Issuer shall require the Calculation Agent to adjust the Shares or Share Basket, as the case may be, to include shares selected by it (the "Substitute Share(s)") in place of the Shares (the "Event Affected Share(s)") which are affected by such Extraordinary Event, and such Substitute Share(s) and their issuer will be deemed to be the "Share" and a "Share Issuer" for the purposes of these Share Linked Provisions and Part B (general terms) of the applicable Issue Specific Terms, respectively, and the Calculation Agent may make such adjustment, if any, to any one or more of the terms of the Share Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Share Linked Securities, as the Calculation Agent determines appropriate. For the avoidance of doubt, such Substitute Shares may include Depositary Receipts and/or shares of Exchange Traded Funds. In this regard:
  - such substitution and the relevant adjustment to the terms of the Share Linked Securities will be deemed to be effective as of the date determined by the Calculation Agent (the "Substitution Date") which may, but need not, be the Merger Date or Tender Offer Date or the date of the Delisting, Insolvency or Nationalisation or, where the Event Affected Share is a share of an Exchange Traded Fund, as specified in Part B (general terms) of the applicable Issue Specific Terms, an Extraordinary Fund Event (as the case may be);

- (ii) the weighting of each Substitute Share in the relevant Share Basket, if applicable, will be equal to the Share Weighting of the relevant Event Affected Share, unless otherwise determined by the Calculation Agent;
- (iii) if a Merger Event or a Tender Offer occurs between two or more Shares of the relevant Share Basket, if applicable, Share Substitution will apply; and
- (iv) in order to be selected as a Substitute Share, each relevant share (or a Depositary Receipt or a share in an Exchange Traded Fund) must be a share which:
  - (A) is not already comprised in the Share Basket;
  - (B) belongs to a similar economic sector as the relevant Event Affected Share; and
  - (C) is of comparable market capitalisation, international standing, and exposure as the relevant Event Affected Share,

in each case, as determined by the Calculation Agent, provided that if a Merger Event or Tender Offer has occurred in respect of the Event Affected Share, the Calculation Agent may determine the Substitute Share to be the shares of the relevant successor to the issuer of such Event Affected Shares following such Merger Event or Tender Offer as determined by the Calculation Agent acting in reasonable discretion.

If the Calculation Agent determines in its reasonable discretion that either (A) there is no suitable Substitute Share(s) in respect of an Event Affected Share(s), or (B) no substitution would produce a commercially reasonable result, it may direct the Issuer to redeem the Share Linked Securities under Share Linked Provision 3.4 (*Early Redemption*) below.

### 3.3 Occurrence of an Additional Disruption Event

If the Calculation Agent has determined, in its reasonable discretion, that any Additional Disruption Event specified as applicable in Part B (general terms) of the applicable Issue Specific Terms has occurred, it may direct the Issuer to redeem the Share Linked Securities under Share Linked Provision 3.4 (*Early Redemption*) below.

# 3.4 Early Redemption

If, following the occurrence of any of the relevant events listed in Share Linked Provisions 3.1, 3.2 or 3.3 (*Adjustments*) above, the Calculation Agent has directed the Issuer to redeem the Share Linked Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to the Security Holders in accordance with Section 17 (*Notices*) of the General Conditions designating a termination date (the "**Termination Date**"). With effect to the Termination Date, the Issuer shall redeem all, but not some only, of the Share Linked Securities and it shall pay an amount equal to the Termination Amount to each Security Holder in respect of each Share Linked Security held by it. Payment of the Termination Amount will be due on the Settlement Date and be made in such manner as shall be notified to the Security Holders in accordance with Section 17 (*Notices*) of the General Conditions.

# 4. Correction of Underlying Price

If Part B (general terms) of the applicable Issue Specific Terms specify that "Correction of Underlying Price" shall be applicable for a relevant Share, then, in the event that any Underlying Price, published on the Exchange on any date and utilised for any calculation or determination, is subsequently corrected and the correction is published by the Exchange within one Settlement Cycle after the original publication, the Calculation Agent will determine the amount (if any) that is payable or deliverable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Share Linked Securities to account for such correction, provided that, if a Correction Cut-off Date is applicable for a relevant Share for any relevant date, corrections published after such Correction Cut-off Date will be disregarded by the Calculation Agent for the purposes of determining or calculating any relevant amount, and/or whether any event specified in Part B (general terms) of the applicable Issue Specific Terms has occurred.

# 5. Depositary Receipts Provisions

# 5.1 Application of Depositary Receipts Provisions

In relation to any Share Linked Securities to which these Share Linked Provisions apply and for which Part B (general terms) of the applicable Issue Specific Terms specify that the "**Depositary Receipts Provisions**" shall be applicable, (i) each reference in such Share Linked Provisions to "**Share**" and "**Shares**" shall be construed as a reference to "**Depositary Receipt**" and "**Depositary Receipts**" and (ii) the provisions of, and the terms and expressions defined in, this Share Linked Provision 5 shall apply:

- (a) The following terms shall have the following meanings in relation to Depositary Receipts:
  - (i) "**Deposit Agreement**" means the agreement or other instrument constituting the Depositary Receipts, as from time to time amended or supplemented in accordance with its terms;
  - (ii) "**Depositary**" means the depositary of the Depositary Receipts appointed as such under the terms of the Deposit Agreement or any successor depositary thereunder;
  - (iii) "**Depositary Receipts**" means the depositary receipts specified in Part B (general terms) of the applicable Issue Specific Terms;
  - (iv) "Underlying Shares" means such shares of the Underlying Share Issuer as specified in Part B (general terms) of the applicable Issue Specific Terms; and
  - (v) "**Underlying Share Issuer**" shall be as specified in Part B (general terms) of the applicable Issue Specific Terms.
- (b) The definitions of "Nationalisation", "Insolvency", "Delisting", "Potential Adjustment Event", "Failure to Deliver", "Insolvency Filing", "Merger Event", "Tender Offer", "Market Disruption Event", "Exchange Disruption", "Trading Disruption" and "Early Closure" shall, in each case, be construed in relation to a Share which is a Depositary Receipt as if: (i) all references in the relevant definitions to a "Share Issuer" were deleted and replaced with "Depositary and/or Underlying Share

- Issuer, as appropriate" and (ii) all references in that definition to a "Share" were deleted and replaced with "Depositary Receipt and/or Underlying Share, as appropriate".
- (c) For the purposes of determining whether a market disruption has occurred and/or is continuing in respect of a Share which is a Depositary Receipt, the definitions of "Exchange", "Related Exchange" and "Valuation Time" shall be construed in relation to the Depositary Receipts as if: (i) all references in the relevant definition to a "Share Issuer" were deleted and replaced with "Depositary and/or Underlying Share Issuer, as appropriate" and (ii) all references in that definition to a "Share" were deleted and replaced with "Depositary Receipt and/or Underlying Share, as appropriate".
- (d) The definition of "**Potential Adjustment Event**" shall be amended in relation to the Depositary Receipts only to include the following event: "the making of any amendment or supplement to the terms of the Deposit Agreement".

# 5.2 **Termination of Deposit Agreement**

If the Deposit Agreement is terminated, then on or after the date of such termination, references to Depositary Receipts shall be replaced by references to the Underlying Share and the Calculation Agent will adjust any relevant terms and will determine the effective date of such replacement and adjustments.

### 6. Dividend Amounts

If Part B (general terms) of the applicable Issue Specific Terms specify that the "**Dividend Amount Provisions**" shall be applicable for a relevant Share, then the relevant Dividend Amount for a Dividend Period shall be payable in respect of each Share Linked Security on the corresponding Dividend Payment Date for such Dividend Period.

# 7. Delisting, Discontinuance or Modification of a Share that is a share of an Exchange Traded Fund

(a) Where the Share is a share of an Exchange Traded Fund, upon the occurrence of a Delisting in relation to such Share, the Calculation Agent may, in its reasonable discretion, either (a) make the determinations and take the actions specified in Share Linked Provision 3.2, or (b) substitute the Share for a share in another exchange traded fund (such exchange traded fund, a "Successor Fund") that the Calculation Agent determines, in its reasonable discretion, to be comparable to the delisted Share. If the Calculation Agent determines that no share in a Successor Fund is available, then the Calculation Agent will, in its reasonable discretion, determine the appropriate Underlying Prices of the relevant delisted Share in respect of any relevant Reference Dates or Averaging Reference Dates, as applicable, by a computation methodology that the Calculation Agent determines will as closely as reasonably possible replicate the delisted Share. If a share of a Successor Fund is selected, such share in that Successor Fund will be substituted for the delisted Share for all purposes of the Share Linked Securities and the Calculation Agent may determine in its reasonable discretion the appropriate date for the substitution of the delisted Share.

(b) If at any time the index underlying the Exchange Traded Fund and/or the terms and conditions governing the assets, contracts and instruments invested in or held by the Exchange Traded Fund are changed in a material respect (as determined by the Calculation Agent), or if the Exchange Traded Fund in any other way is modified so that it does not, in the reasonable discretion of the Calculation Agent, fairly represent the net asset value of the Shares had those changes or modifications not been made, then, from and after that time, the Calculation Agent will make those calculations and adjustments in its reasonable discretion as judgment of the Calculation Agent, may be necessary in order to arrive at a price of an exchange traded fund comparable to the Exchange Traded Fund or the Successor Fund, as the case may be, as if those changes or modifications had not been made, and calculate the closing prices with reference to the Exchange Traded Fund or the Successor Fund, as adjusted. Accordingly, if the Exchange Traded Fund or a Successor Fund is modified in a way that the price of its shares is a fraction of what it would have been if it had not been modified (for example, due to a split or a reverse split), then the Calculation Agent will adjust the price in order to arrive at a price of the Shares or shares of the Successor Fund as if it had not been modified (for example, as if the split or the reverse split had not occurred). The Calculation Agent also may determine that no adjustment is required by the modification of the method of calculation.

### 8. Definitions

The following terms and expressions shall have the following meanings in relation to Share Linked Securities to which these Share Linked Provisions apply:

"Acceptable Exchange" means, in respect of any relevant Shares: (a) where the Exchange is located in the European Union and the United Kingdom, each principal exchange, quotation system or execution facility on which Shares are traded in each jurisdiction within European Union, Switzerland and Norway, provided that the Calculation Agent has determined that there is reasonably comparable liquidity on that exchange, quotation system or execution facility relative to the liquidity that existed on the Exchange; or (b) where the Exchange is located in the United States, any of the New York Stock Exchange, NYSE Arca, NYSE Amex, NASDAQ Global Market or NASDAQ Global Select Market (or their respective successors); or (c) where the Exchange is located outside of the European Union or the United States, each principal exchange, quotation system or execution facility on which Shares are traded in the same jurisdiction as the Exchange, provided that the Calculation Agent has determined that there is reasonably comparable liquidity on that exchange, quotation system or execution facility relative to the liquidity that existed on the Exchange. For the avoidance of doubt, an Acceptable Exchange shall exclude any listing service for shares traded over the counter.

"Additional Disruption Events" means a Change in Law, a Failure to Deliver, a Hedging Disruption, an Illiquidity Event, an Increased Cost of Hedging and an Insolvency Filing (each an "Additional Disruption Event") specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Affected Basket Share" and "Affected Basket Shares" have the meaning given thereto in Share Linked Provision 1.6 (Share Basket and Reference Dates – Common Scheduled Trading Day and Common Disrupted Day).

"Applicable Authority" means any applicable authority having power to tax in respect of any dividends (as determined by the Calculation Agent).

"Averaging Reference Date" means, if specified in Part B (general terms) of the applicable Issue Specific Terms, each Reference Date, in each case, subject to adjustment in accordance with these Share Linked Provisions.

"Basket Share" and "Basket Shares" means each Share which is a component of a Basket, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Date" means, unless otherwise specified in the applicable Issue Specific Terms: (a) in respect of Shares Linked Securities referencing a single Share, each Scheduled Trading Day which is not a Disrupted Day for that Share, (b) in respect of Shares Linked Securities referencing a Share Basket, each Common Scheduled Trading Day that is not a Disrupted Day for that Share Basket.

"Calculation Hours" means, unless otherwise specified in the applicable Issue Specific Terms:
(a) in respect of Share Linked Securities referencing a single Share, an intra-day period of time on a Calculation Date from the opening of the relevant Exchange until its Scheduled Closing Time, (b) in respect of Share Linked Securities referencing a Share Basket, an intra-day period of time on a Calculation Date from the opening time of the last Exchange to open until the Scheduled Closing Time of the first Exchange to close.

"Change in Law" means that either (a) on or after the Issue Date, due to (i) the adoption or announcement of or any change in any applicable law or regulation (including without limitation, any tax law and any Sanctions Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or any related Hedge Positions), or (ii) the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or relevant Clearing System) of any applicable law or regulation (including any action taken by a taxing authority), (x) it has become illegal for the Hedging Entity to hold, acquire or dispose of the Hedge Positions relating to such Share Linked Securities, or (y) the Calculation Agent determines that the Hedging Entity, the Issuer and/or any of its affiliates will incur a materially increased cost in performing its obligations under the Share Linked Securities (including, without limitation, due to any increase in tax liability, decrease in tax benefit or other adverse effect on its tax position), (b) it has, as a result of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the promulgation of regulations thereunder or the interpretation of such laws and/or regulations by relevant authorities (together, the "Dodd-Frank Act") or otherwise become illegal for the Hedging Entity to hold interests in any of the relevant Shares or any related assets or the Dodd-Frank Act makes the holding of any Hedge Positions illegal or inadvisable, or materially increases the costs of holding such assets.

"Common Scheduled Trading Day" means, in respect of a Share Basket, each day which is a Scheduled Trading Day for each Basket Share in such Share Basket.

"Correction Cut-off Date" means, in respect of any Share, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms, or, if "Correction Cut-off Date" is specified in the Issue Specific Terms to be applicable to any date on which the price of such

Share is required to be determined, but no date is specified for the Correction Cut-off Date, then the Correction Cut-off Date for such Share and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Share on such day.

"Delisting" means, in respect of any relevant Shares, that for any reason (other than a Merger Event or Tender Offer): (a) the Calculation Agent determines that: (i) such Shares have ceased to be listed, traded or publically quoted on the Exchange; (ii) it is not reasonably certain that the cessation is, or will be, temporary; and (iii) such Shares are not immediately re-listed, re-traded, or re-quoted on an Acceptable Exchange (for the avoidance of doubt, the suspension of trading in the Shares on the relevant Exchange for a period of 30 or more consecutive calender days would constitute a Delisting); or (b) the Exchange announces that pursuant to the rules of such Exchange (or the Calculation Agent otherwise determines based on publically available information that), such Shares will cease to be listed, traded, or publicly quoted on such Exchange and the Calculation Agent determines that there is reasonable certainty that such Shares will not be immediately re-listed, re-traded, or re-quoted on an Acceptable Exchange.

"**Disrupted Day**" means any Scheduled Trading Day on which a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session or on which a Market Disruption Event has occurred.

"**Dividend Amount**" means, in respect of a Share, a Dividend Period and a Dividend Payment Date, either (a) the Record Amount, (b) the Ex Amount, (c) the Paid Amount, or (d) any other amount specified or otherwise determined as provided in Part B (general terms) of the applicable Issue Specific Terms.

"**Dividend Payment Date**" means, in respect of a Dividend Period, each date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Dividend Period" means each relevant period as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Early Closure" means, in respect of a Share, the closure on any Exchange Business Day of the relevant Exchange or any Related Exchange prior to its Scheduled Closing Time unless such earlier closing time is announced by such Exchange or Related Exchange, as the case may be, at least one-hour prior to the earlier of (i) the actual closing time for the regular trading session on such Exchange or Related Exchange (as the case may be) on such Exchange Business Day and (ii) the submission deadline for orders to be entered into such Exchange or Related Exchange system for execution as at the relevant Valuation Time on such Exchange Business Day.

"**ETF Disruption Event**" means with respect to an Exchange Traded Fund or shares in an Exchange Traded Fund, in the determination of the Calculation Agent the occurrence or existence on any day of:

(a) a postponement of the date as of which the Exchange is scheduled to determine or publish the price per share of the Exchange Traded Fund for the purposes of calculating the proceeds to be paid to a hypothetical investor that has submitted a timely and valid sale order;

- (b) the occurrence or continuation of a postponement of the determination by the Exchange Traded Fund of the price per share or net asset value of the Exchange Traded Fund;
- (c) the occurrence or continuation of a postponement of the reporting by the Exchange Traded Fund to its investors or, if applicable, the publishing by the Exchange Traded Fund or the relevant publishing service, in each case of the price per share or net asset value of the Exchange Traded Fund;
- (d) the occurrence or continuation of a postponement of the ability of a holder to sell, convert or redeem shares in the Exchange Traded Fund (whether or not in accordance with the Fund Documents);
- (e) the occurrence or continuation of a postponement of the payment of any or all of the redemption proceeds relating to such shares (whether or not in accordance with the Fund Documents); or
- (f) a material lack of liquidity in the market for the shares in the Exchange Traded Fund, compared with the prevailing circumstances as of the Issue Date, as determined by the Calculation Agent.

"Event Affected Share" has the meaning given thereto in Share Linked Provision 3.2 (Occurrence of an Extraordinary Event).

"Ex Amount" means, in respect of a Share and a Dividend Payment Date, 100 per cent. of the Gross Cash Dividend per Share declared by the Share Issuer to holders of record of a Share where the date that the Shares have commenced trading ex-dividend on the Exchange occurs during the relevant Dividend Period corresponding to such Dividend Payment Date.

"Exchange" means, in respect of a Share, each exchange or quotation system specified as such in Part B (general terms) of the applicable Issue Specific Terms for such Share, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in such Share has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to such Share on such temporary substitute exchange or quotation system as on the original Exchange). If a Share is listed on two or more exchanges including the relevant Exchange, the Calculation Agent may decide that any other exchange on which the Share is listed at that time is the substitute exchange (provided that the Calculation Agent has determined that there is comparable liquidity relative to such Share on such exchange as on the original Exchange).

"Exchange Business Day" means, in respect of a Share, any Scheduled Trading Day for such Share on which each Exchange and each Related Exchange for such Share are open for trading during their respective regular trading sessions, notwithstanding any such Exchange or Related Exchange closing prior to its Scheduled Closing Time.

"Exchange Disruption" means, in respect of a Share, any event (other than an Early Closure) that disrupts or impairs (as determined by the Calculation Agent) the ability of market participants in general (i) to effect transactions in, or obtain market values for, the relevant Share on the Exchange, or (ii) to effect transactions in, or obtain market values for, futures or options contracts relating to such Share on any relevant Related Exchange.

"Exchange Traded Fund" means the exchange traded fund specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"Extraordinary Dividend" means an amount per Share specified or otherwise determined as provided in Part B (general terms) of the applicable Issue Specific Terms. If no Extraordinary Dividend is specified in or otherwise determined in Part B (general terms) of the applicable Issue Specific Terms, the characterization of a dividend or portion thereof as an Extraordinary Dividend shall be determined by the Calculation Agent.

"Extraordinary Event" means, in respect of a Share, a Delisting, an Insolvency, a Merger Event, a Nationalisation, a Tender Offer, and where the Share is a share of an Exchange Traded Fund, an Extraordinary Fund Event. Extraordinary Events shall include any event leading to the adjustment of any terms of listed options or futures contracts of the relevant Shares traded on a Related Exchange or an Options Exchange which is not considered to be a Potential Adjustment Event or an unscheduled settlement of listed options or futures contracts of the relevant Shares traded on a Related Exchange or an Options Exchange.

"Extraordinary Fund Event" means the occurrence of any of the following events in respect of an Exchange Traded Fund or a share or shares in such Exchange Traded Fund:

- (a) any breach or violation of the provisions of the Fund Documents including, but not limited to: the constitutive and governing documents of the Exchange Traded Fund, the subscription agreements, any strategy or investment guidelines, and any other agreement entered into by the Exchange Traded Fund and/or its service providers that is reasonably likely to affect the value of the Exchange Traded Fund;
- (b) the non-execution or partial execution by the Exchange Traded Fund for any reason of a subscription or redemption order in respect of any shares in the Exchange Traded Fund given by the Issuer (or any of its affiliates) or any entity that acts as a market maker for the Exchange Traded Fund (whether or not in accordance with the Fund Documents);
- (c) the Exchange Traded Fund:
  - (i) is dissolved or has a resolution passed for its dissolution, winding-up, official liquidation (other than pursuant to a consolidation, amalgamation or merger);
  - (ii) makes a general assignment or arrangement with or for the benefit of its creditors;
  - (iii) either:
    - A. institutes or has instituted against it, by a regulator, supervisor or any similar official with primary insolvency, rehabilitative or regulatory jurisdiction over it in the jurisdiction of its incorporation or organisation or the jurisdiction of its head or home office, a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation by it or such regulator, supervisor or similar official; or
    - B. has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or other relief under any bankruptcy or insolvency law or other

similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and such proceeding or petition is instituted or presented by a person or entity not described in paragraph A above and either (x) results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (y) is not dismissed, discharged, stayed or restrained, in each case, within fifteen days of the institution or presentation thereof;

- seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all its assets;
- (v) has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets and such secured party maintains possession, or any such process is not dismissed, discharged, stayed or restrained, in each case, within fifteen days thereafter; or
- (vi) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in clauses(i) through (v) above;
- (d) the administration agent, the manager, the investment adviser or the custodian or the trustee, as applicable, of the Exchange Traded Fund ceases to act in its capacity as administrator or manager of, or adviser or custodian or trustee of, the Exchange Traded Fund, as the case may be;
- (e) a material modification of the investment programme, investment objectives, investment policies, investment strategy, investment process or investment guidelines of the Exchange Traded Fund;
- (f) the failure by the Exchange Traded Fund to comply with any applicable reporting obligations (including, without limitation, any periodic reporting of the estimated price per share of the Exchange Traded Fund, periodic statements thereof, return numbers and composition of the Exchange Traded Fund and the allocation of capital for the Exchange Traded Fund (where applicable));
- (g) a material modification (other than any modifications referred to in (e) above) of the Exchange Traded Fund (including but not limited to a modification of the prospectus of the Exchange Traded Fund or the articles of association or other Fund Documents) or the occurrence of a change or event materially affecting the Exchange Traded Fund (including, but not limited to, the interruption, breakdown or suspension of the calculation of the price per share of the Exchange Traded Fund unless such interruption, breakdown or suspension is cured within two Scheduled Trading Days);
- (h) a material modification of the type of assets in which the Exchange Traded Fund invests or the trading practices of the Exchange Traded Fund (including, but not limited to, a material deviation from the investment policy and investment objectives set out in the

Fund Documents) which, in the determination of the Calculation Agent, has or is likely to have a material effect on any Hedge Position;

- (i) either:
  - (i) the suspension of redemptions of shares in the Exchange Traded Fund;
  - (ii) the Exchange Traded Fund repurchases or compulsorily redeems any shares in the Exchange Traded Fund; or
  - (iii) the Exchange Traded Fund imposes any restriction, charge or fee in respect of a redemption or issue of shares in the Exchange Traded Fund (other than any restriction, charge or fee in existence as at the relevant Issue Date);
- (j) the Exchange Traded Fund or its investment adviser or manager has its authorisation or registration cancelled by any applicable regulatory authority;
- (k) the Exchange Traded Fund or the investment adviser, manager or the administration agent of the Exchange Traded Fund:
  - (i) becomes subject to any investigation, proceeding or litigation by any relevant governmental, legal or regulatory authority involving the alleged violation of applicable law for any activities relating to or resulting from the operation of the Exchange Traded Fund, investment adviser, manager or administration agent;
  - (ii) commits an act which constitutes fraud or criminal activity in the performance of its obligations in respect of the Exchange Traded Fund;
  - (iii) makes any material misrepresentation under any document in respect of the Exchange Traded Fund; or
  - (iv) announces its intention to cease the business of investment management;
- (l) the occurrence of any:
  - (i) reclassification or change of shares in an Exchange Traded Fund that results in a transfer of, or an irrevocable commitment to, transfer all of such shares outstanding;
  - (ii) consolidation, amalgamation or merger of an Exchange Traded Fund with or into another entity; or
  - (iii) other takeover offer for the shares of an Exchange Traded Fund that results in a transfer of or an irrevocable commitment to transfer all such shares (other than such shares owned or controlled by the offeror);
- (m) any ETF Disruption Event, where such Reference Fund Disruption Event continues for a period of eight Scheduled Trading Days; or
- (n) any event of default (howsoever described) in respect of a counterparty with which the Exchange Traded Fund has a material position as determined by the Calculation Agent in accordance with the terms of the agreement governing that position.

"Failure to Deliver" means, if "Physical" or "Cash or Physical" is specified as Settlement in Part B (general terms) of the applicable Issue Specific Terms, the failure of the Issuer to deliver, when due, the relevant Shares in respect of the Share Linked Securities, where such failure is due to illiquidity in the market for such Shares.

"Fallback Valuation Date" means, in respect of any Share, the date(s) specified as such in the relevant Final Terms, or, if "Fallback Valuation Date" is specified in the Final Terms to be applicable to any date on which the price of such Share is required to be determined, but no date is specified for the Fallback Valuation Date, then the Fallback Valuation Date for such Share and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Share on such day.

"**Fund Documents**" means in respect of an Exchange Traded Fund, the constitutional documents in the form of a prospectus, information memorandum, trust deed or any other analogous documentation, each as may be amended and supplemented from time to time, setting forth the terms, conditions and rights related to each share.

"Gross Cash Dividend" means, in respect of a Share, a sum before the withholding or deduction of taxes at source by or on behalf of any Applicable Authority, and excluding any imputation or other credits, refunds or deductions granted by an Applicable Authority and any taxes, credits, refunds or benefits imposed, withheld, assessed or levied thereon. In addition, "Gross Cash Dividend" shall exclude Extraordinary Dividends, if any, unless otherwise specified in the Issue Specific Terms. If the Issue Specific Terms specify the Gross Cash Dividend shall include Extraordinary Dividend, than only any Extraordinary Dividend in the form of cash shall be included.

"Hedge Positions" means any arrangements entered into by the Hedging Entity at any time in order to hedge the payment obligations of the Issuer, on an individual or on a portfolio basis, under the Share Linked Securities including, without limitation, any acquisition, purchase, sale, entry into or maintenance of one or more (a) positions or contracts in securities, options, future, foreign exchange or derivatives, (b) stock loan transactions or (c) any other instruments or arrangements (howsoever described).

"Hedging Disruption" means, in respect of any Share Linked Securities, that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in good faith, to (a) hold, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant Share Linked Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

"Hedging Entity" means the Calculation Agent or another member of the Goldman Sachs Group.

"Increased Cost of Hedging" means that the Hedging Entity would incur materially increased costs (as compared with circumstances existing on the Issue Date), including, without limitation, increased tax (including any potential tax which the Calculation Agent considers may arise),

duty, expense or fee (other than brokerage commissions) to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the Hedging Entity's obligations with respect to the Securities, or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), **provided that** any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Hedging Entity shall not be deemed an Increased Cost of Hedging.

"Insolvency" means, in respect of a Share (other than a share in an Exchange Traded Fund) and the Share Issuer, that either (a) by reason of the voluntary or involuntary liquidation, bankruptcy, insolvency, dissolution, or winding-up of or any analogous proceeding affecting the Share Issuer, (i) all the Shares of such Share Issuer are required to be transferred to a trustee, liquidator, or other similar official, or (ii) holders of the Shares of such Share Issuer become legally prohibited from transferring them; or (b) an Insolvency Event occurs in respect of such Share Issuer.

"Insolvency Event" means, in respect of a Share and the Share Issuer, that the Share Issuer: (a) institutes, or has instituted against it by a regulator, supervisor or any similar official with primary insolvency, rehabilitative or regulatory jurisdiction over it in the jurisdiction of its incorporation or organisation or the jurisdiction of its head office or home office, or consents to a proceeding seeking a judgment of insolvency or bankruptcy law or similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation or liquidation by it or such regulator, supervisor or similar official or it consents to such petition; and/or (b) either has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and such proceeding or petition is instituted or presented by a person not described in (a) above and either (i) results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (ii) is not dismissed, discharged, stayed or restrained, in each case within 15 days of such institution or presentation.

"Insolvency Filing" means, in respect of a Share, that either (a) the Share Issuer (i) institutes or has instituted against it by a regulator, supervisor or any similar official with primary insolvency, rehabilitative or regulatory jurisdiction over it in the jurisdiction of its incorporation or organisation or the jurisdiction of its head or home office, or (ii) consents to, a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or (b) a petition is presented for the Share Issuer's winding-up or liquidation by the Share Issuer or such regulator, supervisor or similar official or it consents to such a petition, **provided that**, in each case, proceedings instituted or petitions presented by creditors and not consented to by the Share Issuer of the Shares shall not be deemed an Insolvency Filing.

"Illiquidity Event" means, in respect of a Share or a Basket Share, a determination by the Calculation Agent, acting in its reasonable discretion, that the market in respect of the relevant Share (or in respect of any relevant Basket Share) is illiquid.

"Market Disruption Event" means, in respect of a Share, the occurrence or existence of (i) a Trading Disruption, (ii) an Exchange Disruption, which in either case the Calculation Agent

determines is material, at any time during the one-hour period that ends at the relevant Valuation Time, (iii) an Early Closure, (iv) any change in national or international financial, political or economic conditions or currency exchange rates or exchange controls, the effect of which is, in the determination of the Calculation Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the calculation or determination of any amount payable or deliverable under the terms and conditions of the Share Linked Securities, or (v) where the Share is a share of an Exchange Traded Fund, an ETF Disruption Event.

"Maximum Days of Disruption" means in respect of Share Linked Securities that relate to:

- (a) a single Share, eight Scheduled Trading Days; or
- (b) a Share Basket in respect of which Part B (general terms) of the applicable Issue Specific Terms do not specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, eight Scheduled Trading Days; or
- a Share Basket in respect of which Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, eight Common Scheduled Trading Days,

or, in each case, such other number of Scheduled Trading Days or Common Scheduled Trading Days, as applicable (or other type of days) specified in Part B (general terms) of the applicable Issue Specific Terms.

"Merger Date" means the closing date of a Merger Event or, where a closing date cannot be determined under the local law applicable to such Merger Event, such other date as determined by the Calculation Agent.

"Merger Event" means, in respect of any relevant Shares, any (i) reclassification or change of such Shares that results in a transfer of, or an irrevocable commitment to transfer all of such Shares outstanding to another entity or person, (ii) consolidation, amalgamation, merger, or binding share exchange of a Share Issuer with or into another entity or person (other than a consolidation, amalgamation, merger, or binding share exchange in which such Share Issuer is the continuing entity and which does not result in a reclassification or change of all of such Shares outstanding), (iii) takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person to purchase or otherwise obtain 100 per cent. of the outstanding Shares of the Share Issuer that results in a transfer of, or an irrevocable commitment to transfer, all such Shares (other than such Shares owned or controlled by such other entity or person), or (iv) consolidation, amalgamation, merger, or binding share exchange of the Share Issuer or its subsidiaries with or into another entity in which the Share Issuer is the continuing entity and which does not result in a reclassification or change of all such Shares outstanding but results in the outstanding Shares (other than Shares owned or controlled by such other entity) immediately prior to such event collectively representing less than 50 per cent. of the outstanding Shares immediately following such event, in each case if the Merger Date is on or before, (a) in the case of a Share Linked Security to which Physical Settlement applies, the Settlement Date, or (b) in any other case, the Final Valuation Date.

"Modified Postponement" has the meaning given thereto in Share Linked Provision 1.2(c) (Single Share and Averaging Reference Dates) or Share Linked Provision 1.4(c) (Share Basket

and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

"Nationalisation" means that all the Shares or all or substantially all the assets of the Share Issuer are nationalised, expropriated, or are otherwise required to be transferred to any governmental agency.

"No Adjustment" has the meaning given thereto in Share Linked Provision 1.1(c) (Single Share and Reference Dates), Share Linked Provision 1.2(d) (Single Share and Averaging Reference Dates), Share Linked Provision 1.3(c) (Share Basket and Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), Share Linked Provision 1.4(d) (Share Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), Share Linked Provision 1.5(b) (Share Basket and Reference Dates – Common Scheduled Trading Day but Individual Disrupted Day) and Share Linked Provision 1.6(c) (Share Basket and Reference Dates – Common Scheduled Trading Day and Common Disrupted Day), as applicable.

"Omission" has the meaning given thereto in Share Linked Provision 1.2(a) (Single Share and Averaging Reference Dates) or Share Linked Provision 1.4(a) (Share Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

"Options Exchange" means, in respect of a Share, the exchange or quotation system specified as such in Part B (general terms) of the applicable Issue Specific Terms, any successor to such exchange or quotation system or any substitute exchange or quotation system, to which trading in options contracts relating to the relevant Share has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to such options contracts on such temporary substitute exchange or quotation system as on the original Options Exchange) or, if no such exchange or quotation system is specified in Part B (general terms) of the applicable Issue Specific Terms, the Related Exchange (if such Related Exchange is specified in Part B (general terms) of the applicable Issue Specific Terms, the Related Exchange selected by the Calculation Agent as the primary market for listed options contracts relating to the relevant Share.

"Paid Amount" means, in respect of a Share and a Dividend Payment Date, 100 per cent. of the Gross Cash Dividend per Share paid by the Share Issuer during the relevant Dividend Period corresponding to such Dividend Payment Date to holders of record of a Share.

"Postponement" has the meaning given thereto in Share Linked Provision 1.2(b) (Single Share and Averaging Reference Dates) or Share Linked Provision 1.4(b) (Share Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

#### "Potential Adjustment Event" means any of the following:

(a) a subdivision, consolidation or reclassification of relevant Shares (unless resulting in a Merger Event) or a free distribution or dividend of any such Shares to existing holders of the Shares by way of bonus, capitalisation, or similar issue;

- (b) a distribution, issue, or dividend to existing holders of the relevant Shares of (i) such Shares, or (ii) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the Share Issuer equally or proportionately with such payments to holders of such Shares, or (iii) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the Share Issuer as a result of a spin-off or other similar transaction, or (iv) any other type of securities, rights, or warrants, or other assets, in any case for payment (in cash or in other consideration) at less than the prevailing market price, all as determined by the Calculation Agent;
- (c) an Extraordinary Dividend;
- (d) a call by a Share Issuer in respect of relevant Shares that are not fully paid;
- (e) a repurchase by a Share Issuer or any of its subsidiaries of relevant Shares whether out of profits or capital and whether the consideration for such repurchase is cash, securities, or otherwise;
- (f) in respect of a Share Issuer, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of such Share Issuer pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments, or stock rights at a price below their market value, as determined by the Calculation Agent, provided that any adjustment effected as a result of such an event shall be readjusted upon any redemption of such rights; or
- (g) any other event having a diluting or concentrative effect on the theoretical value of the relevant Shares, as determined by the Calculation Agent.

"Record Amount" means, in respect of a Share and a Dividend Payment Date, 100 per cent. of the Gross Cash Dividend per Share declared by the Share Issuer to holders of record of a Share on any record date occurring during the relevant Dividend Period corresponding to such Dividend Payment Date.

"Reference Date" means each Scheduled Reference Date, as adjusted in accordance with these Share Linked Provisions.

"Related Exchange" means, in respect of a Share, each exchange or quotation system, if any, specified in Part B (general terms) of the applicable Issue Specific Terms, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in futures or options contracts relating to such Share has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to such Share on such temporary substitute exchange or quotation system as on the original Related Exchange), provided, however, that where "All Exchanges" is specified as the Related Exchange, "Related Exchange" shall mean each exchange or quotation system (as determined by the Calculation Agent) where trading has a material effect (as determined by the Calculation Agent) on the overall market for futures or options contracts relating to such Share or, in any such case, any transferee or successor exchange of such exchange or quotation system (provided that the Calculation Agent has determined that there is

comparable liquidity relative to the futures or options contracts relating to such Share on such temporary substitute exchange or quotation system as on the original Related Exchange).

"Scheduled Averaging Reference Date" means, in respect of a Share, each Scheduled Reference Date, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Scheduled Closing Time" means, in respect of a Share and in respect of an Exchange or Related Exchange and a Scheduled Trading Day, the scheduled weekday closing time of such Exchange or Related Exchange on such Scheduled Trading Day, without regard to after hours or any other trading outside of the regular trading session hours for such Exchange or Related Exchange.

"Scheduled Reference Date" means, in respect of a Share, each the Final Valuation Date and/or any other date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Scheduled Trading Day" means, in respect of a Share, any day on which each Exchange and each Related Exchange for such Share specified in Part B (general terms) of the applicable Issue Specific Terms are scheduled to be open for trading for their respective regular trading sessions.

"**Settlement Cycle**" means, in respect of a Share, the period of Share Clearance System Business Days following a trade in the Share on the Exchange in which settlement will customarily occur according to the rules of such Exchange.

"Settlement Disruption Event" means, in respect of a Share, an event that the Calculation Agent determines is beyond the control of the Issuer and/or its affiliates as a result of which the relevant Share Clearance System cannot clear the transfer of such Share.

"Share" means, in respect of an issue of Share Linked Securities relating to a single Share, the share (including the share of an Exchange Traded Fund), and in respect of an issue of Share Linked Securities relating to a Share Basket, each Basket Share (including the shares of each Exchange Traded Fund), in each case specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"Share Basket" means a basket composed of Shares in the relative proportions or numbers of Shares, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Share Clearance System" means, in respect of a Share, the principal domestic clearance system customarily used for settling trades in the relevant Shares on any relevant date.

"Share Clearance System Business Day" means, in respect of a Share Clearance System, any day on which such Share Clearance System is (or, but for the occurrence of a Settlement Disruption Event, would have been) open for the acceptance and execution of settlement instructions, as determined by the Calculation Agent.

"Share Issuer" means, in respect of a Share, the issuer of such Share, as specified in Part B (general terms) of the applicable Issue Specific Terms (or as may otherwise be determined by the Calculation Agent).

"Share Linked Securities" means Securities for which, pursuant to Part B (general terms) of the applicable Issue Specific Terms, the Share Linked Provisions apply.

"Share Weighting" means, in respect of each Basket Share, the relevant weighting for such Basket Share expressed as a percentage, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Substitute Shares" has the meaning given thereto in Share Linked Provision 3.2 (*Occurrence of an Extraordinary Event*).

"Substitution Date" has the meaning given thereto in Share Linked Provision 3.2 (Occurrence of an Extraordinary Event).

"Successor Fund" has the meaning given thereto in Share Linked Provision 7 (*Delisting, Discontinuance or Modification of a Share that is a share of an Exchange Traded Fund*).

"Tender Offer" means a takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person that results in such entity or person purchasing, or otherwise obtaining, or having the right to obtain, by conversion or other means, greater than 10 per cent. and less than 100 per cent. of the outstanding voting shares of a Share Issuer, as determined by the Calculation Agent, based upon the making of filings with governmental or self-regulatory agencies or such other information as the Calculation Agent determines to be relevant.

"**Tender Offer Date**" means, in respect of a Tender Offer, or, the date on which voting Shares in the amount of the applicable percentage threshold are actually purchased or otherwise obtained, as determined by the Calculation Agent.

"**Termination Date**" has the meaning given thereto in Share Linked Provision 3.4 (*Early Redemption*).

"Termination Amount" means an amount in respect of each Share Linked Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of a Share Linked Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant Share Linked Security and, if applicable, accrued interest. The Termination Amount will be rounded in the same manner as the Settlement Amount. When determining the Termination Amount, the Calculation Agent may, inter alia, also consider the probability of default of the Issuer based on the credit spreads quoted on the market or on the yields of bonds of the Issuer that are traded with sufficient liquidity at the time of determining the Termination Amount. When determining the Termination Amount in respect of any closed end Securities in the case of a termination following a Merger Event in the form of a takeover offer where consideration consists exclusively or predominantly of cash, the Calculation Agent may, in addition to the factors set out above, consider the price of the relevant Share immediately after the announcement of the takeover offer as well as any market parameters prevailing at the time immediately preceding the announcement of the takeover offer, and, in particular, it may take into account any rules that a Related Exchange uses, or would normally use, to determine the theoretical fair value of the relevant Shares, such as expected dividends and implied volatilities. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

"Trading Disruption" means, in respect of a Share, any suspension of, or limitation imposed on, trading by the relevant Exchange or Related Exchange or otherwise, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise, (i) relating to the Share on the relevant Exchange and/or (ii) in futures or options contracts relating to the Share on any relevant Related Exchange.

"Underlying Price" means, in respect of any Calculation Date, the price of the Share as specified in the Issue Specific Terms.

"Valid Date" means a Scheduled Trading Day that is not a Disrupted Day and on which another Averaging Reference Date does not or is not deemed to occur.

"Valuation Time" means the time specified in Part B (general terms) of the applicable Issue Specific Terms or, if no such time is specified, the Scheduled Closing Time on the relevant Exchange on the relevant day in relation to each Share to be valued. If the relevant Exchange closes prior to its Scheduled Closing Time and the specified Valuation Time is after the actual closing time for its regular trading session, then the Valuation Time shall be such actual closing time.

## Annex to General Conditions - Index Linked Provisions

## Adjustment, Modification and Disruption Provisions for Index Linked Securities

- 1. Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days
- 1.1 Single Index and Reference Dates
- 1.2 Single Index and Averaging Reference Dates
- 1.3 Index Basket and Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day
- 1.4 Index Basket and Averaging Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day
- 1.5 Index Basket and Reference Dates Common Scheduled Trading Day but Individual Disrupted Day
- 1.6 Index Basket and Reference Dates Common Scheduled Trading Day and Common Disrupted Day
- 2. Fallback Valuation Date
- 3. Adjustments
- 3.1 Successor Index Sponsor or Successor Index
- 3.2 Occurrence of an Index Adjustment Event
- 3.3 Occurrence of an Additional Disruption Event
- 3.4 Early Redemption
- 4. Correction of Underlying Price
- 5. Index Disclaimer
- 6. Dividend Amounts
- 6.1 Relevant Dividend
- 6.2 Index Adjustment Event and Calculation Agent Adjustment
- 6.3 Dividend Mismatch Event
- 6.4 Failure to Publish
- 6.5 Corrections to Official Index Divisor or number of free floating shares
- 7. Index-Linked Derivatives Contract Provisions
- 7.1 Modifications or Early Redemption pursuant to the occurrence of an Index-Linked Derivatives Contract Adjustment Event
- 7.2 Corrections to price of Index-Linked Derivatives Contract
- 8. Definitions

# 1. Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days

### 1.1 Single Index and Reference Dates

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Index, and if the Calculation Agent determines that any Scheduled Reference Date in respect of such Index is not a Scheduled Trading Day or is a Disrupted Day, then the Reference Date for such Index shall be the first succeeding Scheduled Trading Day that the Calculation Agent determines is not a Disrupted Day in respect of such Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Index immediately following such Scheduled Reference Date is a Disrupted Day for such Index. In that case:

- (a) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Index, notwithstanding the fact that such day is a Disrupted Day for such Index; and
- (b) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on that Scheduled Trading Day in accordance with the formula for and method of, calculating the relevant Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent pursuant to this paragraph (b) shall be deemed to be the Underlying Price in respect of the relevant Reference Date,

## provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for the relevant Index shall be the Scheduled Reference Date, notwithstanding the fact that any Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for such Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on any such Reference Date in accordance with the formula for and method of, calculating such Index last in effect prior to the occurrence of such Reference Date, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

## 1.2 Single Index and Averaging Reference Dates

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Index, and, if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of such Index is not a Scheduled Trading Day or is a Disrupted Day and, if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is:

(a) "Omission", then such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date, provided that, if through the operation of this provision there would not be any Averaging Reference Dates, then the Averaging Reference Date for

such Index shall be the first succeeding Scheduled Trading Day following the final Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Index immediately following such final Scheduled Averaging Reference Date is a Disrupted Day for such Index. In that case:

- (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Index, notwithstanding the fact that such day is a Disrupted Day for such Index; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on that Scheduled Trading Day in accordance with the formula for and method of, calculating the relevant Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date.
- (b) "Postponement", then the relevant Averaging Reference Date for such Index shall be the first succeeding Scheduled Trading Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day for such Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Index immediately following such Scheduled Averaging Reference Date is a Disrupted Day for such Index. In that case:
  - (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Index, notwithstanding the fact that such day is a Disrupted Day for such Index; and
  - the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on that Scheduled Trading Day in accordance with the formula for and method of, calculating the relevant Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date. For the avoidance of doubt, an Averaging Reference Date determined in accordance with this Index Linked Provision 1.2 in respect of a Scheduled Averaging Reference Date in respect of another Scheduled Averaging Reference Date falls, whether or not such latter Averaging Reference Date was also determined in accordance with this Index Linked Provision 1.2;

- (c) "Modified Postponement", then the relevant Averaging Reference Date shall be the first succeeding Valid Date. If the first succeeding Valid Date has not occurred as of the relevant Valuation Time on the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Averaging Reference Date that, but for the occurrence of another Averaging Reference Date or a Disrupted Day for such Index, would have been the relevant Averaging Reference Date, then:
  - (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Index, notwithstanding the fact that such day is already an Averaging Reference Date or is a Disrupted Day for such Index; and
  - (ii) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date,

### provided that:

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Averaging Reference Date for the relevant Index shall be the Scheduled Averaging Reference Date, notwithstanding the fact that any such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day for such Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price on any such Averaging Reference Date in accordance with the formula for and method of, calculating such Index last in effect prior to the occurrence of such Averaging Reference Date, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date;
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day in respect of such Index and, Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then "**Postponement**" will apply.
- 1.3 Index Basket and Reference Dates Individual Scheduled Trading Day and Individual Disrupted Day

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to an Index Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Trading Day and Individual Disrupted Day)" applies, and, if the Calculation Agent determines that any Scheduled Reference Date in respect of any Basket Index is not a Scheduled Trading Day or is a Disrupted Day for such Basket Index, then:

- (a) if the Calculation Agent determines that such Scheduled Reference Date for a Basket Index is a Scheduled Trading Day that is not a Disrupted Day, then the Reference Date for such Basket Index shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that such Scheduled Reference Date for a Basket Index is not a Scheduled Trading Day or is a Disrupted Day, then the Reference Date for such Basket Index shall be the first succeeding Scheduled Trading Day which the Calculation Agent determines is not a Disrupted Day for such Basket Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Reference Date is a Disrupted Day for such Basket Index. In that case:
  - (i) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Basket Index, notwithstanding the fact that such day is a Disrupted Day for such Basket Index; and
  - (ii) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Basket Index, such determination by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the Underlying Price in respect of such Reference Date,

#### provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then any Reference Date shall be the relevant Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for any Basket Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of each Basket Index on such Reference Date in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of such Reference Date, using the relevant Default Values, and, in respect of such Basket Index, such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

## 1.4 Index Basket and Averaging Reference Dates - Individual Scheduled Trading Day and Individual Disrupted Day

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to an Index Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Trading Day and Individual Disrupted Day)" applies, and, if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of any Basket Index is not a Scheduled Trading Day or is a Disrupted Day for such Basket Index and:

- (a) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "Omission", such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date for the relevant Basket Index, provided that, if through the operation of this provision there would not be any Averaging Reference Dates, then the sole Averaging Reference Date for such Basket Index shall be determined by reference to the final Scheduled Averaging Reference Date as follows:
  - (i) for each Basket Index for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a Disrupted Day, the Averaging Reference Date for such Basket Index shall be such final Scheduled Averaging Reference Date; and
  - (ii) for each Basket Index for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day, then the Averaging Reference Date for such Basket Index shall be the first succeeding Scheduled Trading Day following the final Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Basket Index immediately following such final Scheduled Averaging Reference Date is a Disrupted Day for such Index. In that case:
    - (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Index, notwithstanding the fact that such day is a Disrupted Day for such Basket Index; and
    - (B) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of that last consecutive Scheduled Trading Day, using the Relevant Values, and, in respect of each Basket Index, such determination by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date;
- (b) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Postponement**", then:
  - (i) for each Basket Index for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a Disrupted Day, the Averaging Reference Date for such Basket Index shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Index for which the Calculation Agent determines that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a

Disrupted Day, then the Averaging Reference Date for such Basket Index shall be the first succeeding Scheduled Trading Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption in respect of such Basket Index immediately following such Scheduled Averaging Reference Date is a Disrupted Day for such Basket Index. In that case:

- (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Index, notwithstanding the fact that such day is a Disrupted Day for such Basket Index; and
- (B) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of that Scheduled Trading Day, using the Relevant Values, and, in respect of each Basket Index, such determination by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date. For the avoidance of doubt, an Averaging Reference Date determined in accordance with this Index Linked Provision 1.4 in respect of a Scheduled Averaging Reference Date may fall on the same day that another Averaging Reference Date falls, whether or not such latter Averaging Reference Date was also determined in accordance with this Index Linked Provision 1.4:
- (c) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Modified Postponement**", then:
  - (i) for each Basket Index for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Scheduled Trading Day that is not a Disrupted Day, the Averaging Reference Date for such Basket Index shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Index for which the Calculation Agent determines that such Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day, the relevant Averaging Reference Date shall be the first succeeding Valid Date for such Basket Index. If the first succeeding Valid Date for such Basket Index has not occurred as of the relevant Valuation Time on the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Averaging Reference Date that, but for the occurrence of another Averaging Reference Date or a Disrupted Day for such Basket Index, would have been the relevant Averaging Reference Date, then:

- (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Index, notwithstanding the fact that such day is already an Averaging Reference Date or is a Disrupted Day for such Basket Index; and
- (B) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of that last consecutive Scheduled Trading Day, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date,

## provided that,:

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then any Averaging Reference Date shall be the Scheduled Averaging Reference Date, notwithstanding the fact that such Scheduled Averaging Reference Date is not a Scheduled Trading Day for any Basket Index or is a Disrupted Day for such Basket Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of any such Basket Index on such Averaging Reference Date in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of such Averaging Reference Date, using the Relevant Values, and, in respect of such Basket Index, such determination by the Calculation Agent pursuant to this paragraph (d) shall be deemed to be the Underlying Price in respect of the relevant Averaging Reference Date; and
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Scheduled Trading Day or is a Disrupted Day in respect of any Basket Index and, Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then "**Postponement**" will apply.

# 1.5 Index Basket and Reference Dates - Common Scheduled Trading Day but Individual Disrupted Day

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to an Index Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day but Individual Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines that any Scheduled Reference Date is a Common Scheduled Trading Day that is not a Disrupted Day for each Basket Index, then the Reference Date for each Basket Index shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that any Scheduled Reference Date is not a Common Scheduled Trading Day for each Basket Index, the Reference Date for each Basket Index

- shall, subject to paragraph (c) below, be the first succeeding Common Scheduled Trading Day following such Scheduled Reference Date;
- (c) if the Calculation Agent determines that either (I) any Scheduled Reference Date is a Common Scheduled Trading Day but is a Disrupted Day for one or more Basket Indices, or (II) if paragraph (b) above applies, the relevant Common Scheduled Trading Day immediately following a Scheduled Reference Date is a Disrupted Day for one or more Basket Indices, then, in respect of (I) and (II), the following provisions shall apply:
  - (i) if the Calculation Agent determines that such Common Scheduled Trading Day is not a Disrupted Day for a Basket Index, then the Reference Date for such Basket Index shall be such Common Scheduled Trading Day; and
  - (ii) if the Calculation Agent determines that such Common Scheduled Trading Day is a Disrupted Day for a Basket Index, then the Reference Date for such Basket Index shall be the first succeeding Scheduled Trading Day which the Calculation Agent determines is not a Disrupted Day for such Basket Index, unless the Calculation Agent determines that each of the consecutive Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Common Scheduled Trading Day is a Disrupted Day for such Basket Index. In that case:
    - (A) the Scheduled Trading Day which falls such number of Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Basket Index, notwithstanding the fact that such day is a Disrupted Day for such Basket Index; and
    - (B) the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on that Scheduled Trading Day in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Basket Index, such determination by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the Underlying Price in respect of the relevant Reference Date,

## provided that:

(iii) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then any Reference Date for each Basket Index shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Common Scheduled Trading Day or is a Disrupted Day for that Basket Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on such Reference Date in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of such Reference Date, using the Relevant Values, and, in respect of such Basket Index,

such determination by the Calculation Agent pursuant to this paragraph (iii) shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

# 1.6 Index Basket and Reference Dates – Common Scheduled Trading Day and Common Disrupted Day

Where the Index Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to an Index Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines that any Scheduled Reference Date is a Common Scheduled Trading Day that is not a Disrupted Day for each Basket Index, then the Reference Date for each Basket Index shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines that any Scheduled Reference Date is not a Scheduled Trading Day for any Basket Index or is a Common Scheduled Trading Day and a Disrupted Day for any Basket Index, then the Reference Date for each Basket Index shall be the first succeeding Common Scheduled Trading Day following such Scheduled Reference Date which the Calculation Agent determines is not a Disrupted Day for each Basket Index, unless the Calculation Agent determines that each of the consecutive Common Scheduled Trading Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Reference Date is a Disrupted Day for one or more Basket Indices. In that case:
  - (i) the Common Scheduled Trading Day which falls such number of Common Scheduled Trading Days equal to the Maximum Days of Disruption after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for each Basket Index, notwithstanding the fact that such day is a Disrupted Day for one or more Basket Indices, (such Basket Indices being "Affected Basket Indices" for such Reference Date, and each such Basket Index being an "Affected Basket Index" for such Reference Date);
  - (ii) for each Basket Index other than an Affected Basket Index, the relevant Underlying Price shall be determined by reference to the relevant screen pages by the Calculation Agent on that Common Scheduled Trading Day; and
  - (iii) for each Affected Basket Index, the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Affected Basket Index on that last consecutive Scheduled Trading Day in accordance with the formula for and method of, calculating such Affected Basket Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Affected Basket Index, such determination by the Calculation Agent pursuant to this paragraph (iii) shall be deemed to be the Underlying Price in respect of such Reference Date,

provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then any Reference Date for any Basket Index shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Trading Day or is a Disrupted Day for such Basket Index, and the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Basket Index on such Reference Date in accordance with the formula for and method of, calculating such Basket Index last in effect prior to the occurrence of such Reference Date, using the Relevant Values, and, in respect of such Index, such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

#### 2. Fallback Valuation Date

Notwithstanding any other terms of these Index Linked Provisions, if a Fallback Valuation Date is specified in Part B (general terms) of the applicable Issue Specific Terms to be applicable to any Reference Date or Averaging Reference Date (any such date being, for the purposes of this Index Linked Provision 2, a "Relevant Date") for an Index, and if, following adjustment of such Relevant Date pursuant to Index Linked Provision 1 (Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days) above (for the purposes of this Index Linked Provision 2, an "Affected Index") the Relevant Date would otherwise fall after the specified Fallback Valuation Date in respect of such Affected Index, then such Fallback Valuation Date shall be deemed to be such Relevant Date for such Affected Index.

If such Fallback Valuation Date is not a Scheduled Trading Day or a Common Scheduled Trading Day or is a Disrupted Day in respect of such Affected Index, as the case may be, then the Calculation Agent shall, in its reasonable discretion, determine the Underlying Price of such Affected Index as of the relevant Valuation Time on such Fallback Valuation Date in accordance with the formula for, and method of, calculating such Affected Index last in effect prior to the occurrence of the first Disrupted Day, using the Relevant Values, and, in respect of such Affected Index, such determination by the Calculation Agent pursuant to this Index Linked Provision 2 shall be deemed to be the Underlying Price at the relevant Valuation Time in respect of the relevant Reference Date or Averaging Reference Date.

### 3. Adjustments

## 3.1 Successor Index Sponsor or Successor Index

If an Index is (i) not calculated and announced by the Index Sponsor but is calculated and announced by a successor index sponsor acceptable to the Calculation Agent (a "Successor Index Sponsor") or (ii) replaced by a successor index using, in the determination of the Calculation Agent acting in its reasonable discretion, the same or a substantially similar formula for, and method of, calculation of such Index, then in each case such index (the "Successor Index") will be deemed to be the Index.

If any of the events set out in (i) or (ii) above has occurred, but the Calculation Agent has not identified, acting in its reasonable discretion, a Successor Index Sponsor or Successor Index, as applicable, then the occurrence of any such event shall constitute either an Index Modification

or Index Cancellation, as applicable, and the provisions of Index Linked Provision 3.2 (*Occurrence of an Index Adjustment Event*) shall apply accordingly, *mutatis mutandis*.

## 3.2 Occurrence of an Index Adjustment Event

If the Calculation Agent determines in respect of an Index that, (i) on or prior to any Reference Date or Averaging Reference Date, the relevant Index Sponsor or Successor Index Sponsor, if applicable, has made or announced that it will make a material change in the formula for, or the method of, calculating a relevant Index, or in any other way materially modifies such Index (other than a modification prescribed in that formula or method to maintain such Index in the event of changes in the Components, capitalisation and/or other routine events) (an "Index **Modification**"), or permanently cancels a relevant Index or the Index may no longer be used as a consequence of new regulatory provisions and no Successor Index exists as at the date of such cancellation (an "Index Cancellation"), or (ii) on any Reference Date or Averaging Reference Date the Index Sponsor or Successor Index Sponsor, if applicable, fails to calculate and announce a relevant Index (an "Index Disruption", and together with Index Modification and Index Cancellation, each an "Index Adjustment Event") (provided that, in respect of a Multi-Exchange Index, the Calculation Agent may, in its reasonable discretion, determine that such event instead results in the occurrence of a Disrupted Day), or (iii) on or prior to any Reference Date or other relevant date, an Administrator/ Benchmark Event Date has occurred in respect of a relevant Index, then

- the Calculation Agent shall, in its reasonable discretion, determine if such Index Adjustment Event has a material effect on the Index Linked Securities and, if so, shall calculate the relevant Underlying Price using, in lieu of a published level for that Index, the level for such Index as at the Valuation Time on that Reference Date or Averaging Reference Date, as the case may be, as, in its reasonable discretion, the Calculation Agent so determines in accordance with the formula for, and method of, calculating such Index last in effect prior to the relevant Index Adjustment Event, but using only those Components that comprised such Index immediately prior to such Index Adjustment Event (other than those Components that have since ceased to be listed on the relevant Exchange), provided that if the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this paragraph Index Linked Provision 3.2 would produce a commercially reasonable result, it may direct the Issuer to redeem the Index Linked Securities under Index Linked Provision 3.4 (Early Redemption) below; or
- (b) the Calculation Agent shall determine if such Index Adjustment Event has a material effect on the Index Linked Securities, and, if so, the Calculation Agent may rebase the Index Linked Securities against another index or basket of indices, as applicable, selected by the Calculation Agent to be reasonably comparable to the relevant Index, and, following such rebasing, the Calculation Agent will make such adjustment(s) that it determines in its reasonable discretion to be appropriate, if any, to any variable, calculation methodology, valuation, settlement, payment terms or any other terms of the Index Linked Securities to account for such rebasing; or
- (c) following each adjustment to the exercise, settlement, payment, or other terms of options or futures contracts on the Index traded on any Options Exchange, the Calculation Agent

will make the appropriate adjustments, if any, to any one or more of the terms of the Index Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Index Linked Securities, as the Calculation Agent determines appropriate in its reasonable discretion, which adjustment will be effective as of the date determined by the Calculation Agent to be the effective date of the corresponding adjustment made by the Options Exchange. If options or futures contracts on the Index are not traded on the Options Exchange, the Calculation Agent will make such adjustment, if any, to any one or more of the terms of such Index Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under such Index Linked Securities, as the Calculation Agent determines appropriate in its reasonable discretion, with reference to the rules of and precedents (if any) set by the Options Exchange, to account for any event that, in the determination of the Calculation Agent, would have given rise to an adjustment by the Options Exchange if such options or futures contracts were so traded:

## provided that if:

- (i) it (I) is or would be unlawful at any time under any applicable law or regulation; or (II) would contravene any applicable licensing requirements for the Calculation Agent, to perform the actions prescribed in paragraphs (a), (a) or (c) above (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time); or
- (ii) the Calculation Agent determines in its reasonable discretion that none of paragraphs (a), (b) or (c) above, as is applicable, would achieve a commercially reasonable result for any of the Issuer, the Calculation Agent or the Security Holders,

it may direct the Issuer to redeem the Index Linked Securities in accordance with Index Linked Provision 3.4 (*Early Redemption*) below.

## 3.3 Occurrence of an Additional Disruption Event

If the Calculation Agent has determined, in its reasonable discretion, that any Additional Disruption Event specified as applicable in Part B (general terms) of the applicable Issue Specific Terms has occurred, it may direct the Issuer to redeem the Index Linked Securities in accordance with Index Linked Provision 3.4 (*Early Redemption*) below.

#### 3.4 Early Redemption

If following the occurrence of any of the relevant events listed in Index Linked Provisions 3.1, 3.2 or 3.3 (*Adjustments*) above or 7.1 (*Modification or Early Redemption pursuant to the occurrence of an Index-Linked Derivatives Contract Adjustment Event*) below, the Calculation Agent has directed the Issuer to redeem the Index Linked Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to Security Holders in accordance with Section 17 (*Notices*) of the General Conditions designating a termination date (the "**Termination Date**"). On the Termination Date, the Issuer shall redeem all, but not some only, of the Index Linked Securities and it shall pay an amount equal to the Termination Amount to each Security Holder in respect of each Index Linked Security held by it. Payment of the

Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 (*Notices*) of the General Conditions.

### 4. Correction of Underlying Price

If Part B (general terms) of the applicable Issue Specific Terms specify that "Correction of Underlying Price" shall be applicable for an Index, then, in the event that any Underlying Price published by the Index Sponsor on any date which is utilised for any calculation or determination is subsequently corrected and the correction is published by the Index Sponsor within one Settlement Cycle after the original publication, the Calculation Agent will make any determination or determine the amount that is payable or deliverable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Index Linked Securities to account for such correction, provided that, if a Correction Cut-off Date is applicable for a relevant Index for any relevant date, corrections published after such Correction Cut-off Date will be disregarded by the Calculation Agent for the purposes of determining or calculating any relevant amount, and/or whether any event specified in Part B (general terms) of the applicable Issue Specific Terms has occurred.

#### 5. Index Disclaimer

Each of the Issuer and the Guarantor agrees and acknowledges and, by purchasing the Index Linked Securities, each Security Holder is deemed to acknowledge and agree, in respect of such Index, that the Index Linked Securities are not sponsored, endorsed, sold, or promoted by the Index or the Index Sponsor and no Index Sponsor makes any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the Index and/or the levels at which the Index stands at any particular time on any particular date or otherwise. No Index or Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the Index and the Index Sponsor is under no obligation to advise any person of any error therein. No Index Sponsor is making any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with the Index Linked Securities. The Issuer and the Guarantor shall have no liability to the Security Holders for any act or failure to act by the Index Sponsor in connection with the calculation, adjustment, or maintenance of the Index. Except as disclosed prior to the Issue Date specified in Part B (general terms) of the applicable Issue Specific Terms, none of the Issuer, the Guarantor, the Calculation Agent or any of their respective affiliates has any affiliation with or control over the Index or Index Sponsor or any control over the computation, composition, or dissemination of the relevant Index. Although the Calculation Agent will obtain information concerning the Index from publicly available sources it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty, or undertaking (express or implied) is made and no responsibility is accepted by the Issuer, the Guarantor, their affiliates, or the Calculation Agent as to the accuracy, completeness, and timeliness of information concerning the Index.

#### 6. Dividend Amounts

#### 6.1 **Relevant Dividend**

"Relevant Dividend" means, in respect of any Relevant Day<sub>t</sub> and each Share<sub>i</sub> comprised in the Index on such Relevant Day<sub>t</sub>:

- (i) any Declared Cash Dividend in respect of such Share; and/or
- (ii) any Declared Cash Equivalent Dividend in respect of such Sharei,

provided that (a) if the Index Sponsor adjusts the calculation methodology of the Index or the level thereof on account of the declaration and/or payment of such Declared Cash Dividend and/or Declared Cash Equivalent Dividend (as the case may be) by the relevant Share Issuer (as determined by the Calculation Agent), then such Declared Cash Dividend and/or Declared Cash Equivalent Dividend (as the case may be) shall not be considered a Relevant Dividend; or (b) the Index Sponsor adjusts the calculation methodology of the Index or the level thereof on account of the declaration and/or payment of any part of such Declared Cash Dividend and/or Declared Cash Equivalent Dividend (as the case may be) by the relevant Share Issuer (as determined by the Calculation Agent), then only the remaining part of such Declared Cash Dividend and/or Declared Cash Equivalent Dividend (as the case may be) (as determined by the Calculation Agent) for which no adjustment took place shall be considered to be a Relevant Dividend, and the definitions of "Declared Cash Dividend" and/or "Declared Cash Equivalent Dividend" (as the case may be) above shall apply as if only such remaining amount had been declared by the Share Issuer.

Where any Relevant Dividend is declared in a currency other than the Settlement Currency, then the Calculation Agent shall convert such Relevant Dividend into the Settlement Currency at the relevant exchange rate declared by the relevant Share Issuer on such date where any such rate is available or, if no such rate is available, at a rate determined by the Calculation Agent.

#### 6.2 Index Adjustment Event and Calculation Agent Adjustment

If Part B (general terms) of the applicable Issue Specific Terms specify that the "Dividend Amount Provisions" shall be applicable for an Index, following the occurrence of an Index Adjustment Event, "Calculation Agent Adjustment" means that the Calculation Agent shall determine if such Index Adjustment Event has a material effect on the Index Linked Securities and, if so, shall amend the Dividend Amount and/or and other terms of the Index Linked Securities as the Calculation Agent determines to be appropriate to account for the economic effect on the Index Linked Securities of such Index Adjustment Event, which may, but need not, be determined by reference to the adjustment(s) made in respect of such Index Adjustment Event by an options exchange to options on the Index traded on such options exchange and the effective date of such amendments or adjustments.

#### 6.3 Dividend Mismatch Event

If Part B (general terms) of the applicable Issue Specific Terms specify that the "**Dividend Amount Provisions**" shall be applicable for an Index, in respect of any Declared Dividend, (a) if a Dividend Mismatch Event occurs; or (b) a Share Issuer fails to make any payment or delivery in respect of such Declared Dividend by the third Business Day following the relevant due date,

or, if earlier, the Correction Cut-off Date, then, in each case, the Calculation Agent may (but shall not be obliged to) make such adjustment as it in its reasonable and absolute discretion determines to be appropriate, if any, to the settlement or payment terms of the Index Linked Securities to account for such Dividend Mismatch Event or non-payment or non-delivery, as the case may be.

#### 6.4 Failure to Publish

If Part B (general terms) of the applicable Issue Specific Terms specify that the "**Dividend Amount Provisions**" shall be applicable for an Index, following the occurrence of a Failure to Publish, the Calculation Agent shall determine the number of free-floating shares in respect of such Share<sub>i</sub> or the Official Index Divisor (as the case may be) in respect of such Relevant Day. In making any such determination, the Calculation Agent may (but shall not be obliged to) make reference to the formula for and method of calculating the number of free-floating shares in respect of such Share<sub>i</sub> or the Official Index Divisor on such Relevant Day (as the case may be) last in effect prior to the occurrence of such Failure to Publish.

## 6.5 Corrections to Official Index Divisor or number of free floating shares

If Part B (general terms) of the applicable Issue Specific Terms specify that the "**Dividend Amount Provisions**" shall be applicable for an Index, in the event that the Official Index Divisor or number of free floating shares calculated and published by the relevant Index Sponsor (or determined by the Calculation Agent pursuant to Index Linked Provision 6.4 (*Failure to Publish*)) and utilised for any calculation or determination made under the Index Linked Securities is subsequently corrected (or, where there has been a Failure to Publish, published by the Index Sponsor) and the correction is published (or, where there has been a Failure to Publish, publication is made) by the Index Sponsor within five Scheduled Trading Days after the original publication, the Calculation Agent will adjust the Dividend Amount, as required, to take into account such correction, provided that if such correction or subsequent publication occurs after the Correction Cut-off Date, then such correction or subsequent publication will be disregarded by the Calculation Agent for the purposes of determining or calculating any Dividend Amount or any settlement or payment terms under the Index Linked Securities.

## 7. Index-Linked Derivatives Contract Provisions

Subject as provided in Part B (general terms) of the applicable Issue Specific Terms, if Part B (general terms) of the applicable Issue Specific Terms specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable, the following terms shall apply, and Index Linked Provision 1 (*Consequences of Non-Scheduled Trading Days, Non-Common Scheduled Trading Days or Disrupted Days*) shall not apply, save in relation to determining the Final Index Level, if applicable:

# 7.1 Modifications or Early Redemption pursuant to the occurrence of an Index-Linked Derivatives Contract Adjustment Event

If Part B (general terms) of the applicable Issue Specific Terms specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable then, following the determination by the Calculation Agent that an Index-Linked Derivatives Contract Adjustment Event has occurred, the Calculation Agent may, in its reasonable discretion, determine the appropriate adjustments,

if any, to be made to any one or more of the terms of the Index Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Index Linked Securities, as the Calculation Agent determines appropriate to account for such Index-Linked Derivatives Contract Adjustment Event, and determine the effective date of that adjustment, provided that if the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this paragraph Index Linked Provision 7.1 would produce a commercially reasonable result, it may direct the Issuer to redeem the Index Linked Securities under Index Linked Provision 3.4 (*Early Redemption*) above.

## 7.2 Corrections to price of Index-Linked Derivatives Contract

If Part B (general terms) of the applicable Issue Specific Terms specify that the "Index-Linked Derivatives Contract Provisions" shall be applicable then, in the event that the relevant price of an Index-Linked Derivatives Contract which is utilised for any calculation or determination in relation to such Index-Linked Derivatives Contract is subsequently corrected and the correction is published by the Derivatives Exchange no later than the second Business Day prior to the Settlement Date, the Calculation Agent will make any determination or determine the amount that is payable or deliverable as a result of that correction, and, to the extent necessary, will adjust any relevant terms of the Index Linked Securities to account for such correction.

#### 8. Definitions

The following terms and expressions shall have the following meanings in relation to Index Linked Securities to which these Index Linked Provisions apply:

"Additional Disruption Events" means a Change in Law, a Hedging Disruption or an Increased Cost of Hedging (each an "Additional Disruption Event") specified as such in the relevant Final Terms.

"Administrator/Benchmark Event" means, in respect of any Index Linked Securities, the occurrence or existence, as determined by the Calculation Agent, of any of the following events:

- (a) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of an Index or the administrator or sponsor of an Index has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, or any prohibition by a relevant competent authority or other relevant official body, in each case with the effect that the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity is not, or will not be, permitted under any applicable law or regulation to use the Index to perform its or their respective obligations under the Index Linked Securities; or
- (b) any material change to the methodology or formula for the Index or any other means of calculating the Index, as determined by the Calculation Agent ("Material Methodology Change Event").

"Administrator/Benchmark Event Date" means, in respect of an Index, the date determined by the Calculation Agent to be:

- (a) in the case of paragraph (a) of the definition of "Administrator/Benchmark Event", the date from which the Index may no longer be used under any applicable law or regulation by Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity to perform its or their respective obligations under the Index Linked Securities; or
- (b) in the case of paragraph (b) of the definition of "Administrator/Benchmark Event", the date on which the change to the methodology or formula for the Index becomes effective,

or, in each case, if such date occurs before the Initial Valuation Date, the Initial Valuation Date.

"Affected Basket Index" and "Affected Basket Indices" have the meaning given thereto in Index Linked Provision 1.6 (*Index Basket and Reference Dates – Common Scheduled Trading Day and Common Disrupted Day*).

"Affected Index" has the meaning given thereto in Index Linked Provision 2 (Fallback Valuation Date).

"Averaging Reference Date" means, if specified in Part B (general terms) of the applicable Issue Specific Terms, each Reference Date, in each case, subject to adjustment in accordance with these Index Linked Provisions.

"Basket Index" means each Index which is a component of an Index Basket, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Date" means, unless otherwise specified in the applicable Issue Specific Terms: (a) in respect of Index Linked Securities referencing a single Index, each Scheduled Trading Date, which is not a Disrupted Day for that Index, (b) in respect of Index Linked Securities referencing an Index Basket, each Common Scheduled Trading Date that is not a Disrupted Day for each Basket Index.

"Calculation Hours" means: (a) in respect of Index Linked Securities referencing a single Index, the period on a Calculation Date, during which the Index is calculated and published by the Index Sponsor, (b) in respect of Index Linked Securities referencing an Index Basket, the period on a Calculation Date, during which all Basket Indices are calculated and published by the respective Index Sponsors.

"Change in Law" means that either (a) on or after the Issue Date, due to (i) the adoption or announcement of or any change in any applicable law or regulation (including without limitation, any tax law and any Sanction Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or any related Hedge Positions), or (ii) the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or revenant Clearing System) of any applicable law or regulation (including any action taken by a taxing authority), (x) it has become illegal for the Hedging Entity to hold, acquire or dispose of the Hedge Positions relating to such Index Linked Securities, or (y) the use of the Index or of the Component the Securities are linked to has become illegal or (z) the Calculation Agent determines that the Hedging Entity, the Issuer and/or any of its affiliates will incur a

materially increased cost in performing its obligations under the Index Linked Securities (including, without limitation, due to any increase in tax liability, decrease in tax benefit or other adverse effect on its tax position), (b) it has, as a result of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the promulgation of regulations thereunder or the interpretation of such laws and/or regulations by relevant authorities (together, the "**Dodd-Frank Act**") or otherwise become illegal for the Hedging Entity to hold interests in any of the relevant Shares or any related assets or (iii) the Dodd-Frank Act makes the holding of any Hedge Positions illegal or inadvisable, or materially increases the costs of holding such assets.

"Common Scheduled Trading Day" means, in respect of an Index Basket, each day which is a Scheduled Trading Day for all Basket Indices in such Index Basket.

"Component" means, in respect of an Index, each share component and/or other component included in such Index, as determined by the Calculation Agent.

"Component Clearance System" means, in respect of a Component of an Index, the principal domestic clearance system customarily used for settling trades in the relevant Component on any relevant date, as determined by the Calculation Agent.

"Component Clearance System Business Day" means, in respect of a Component Clearance System, any day on which such Component Clearance System is (or, but for the occurrence of a Settlement Disruption Event, would have been) open for the acceptance and execution of settlement instructions.

"Correction Cut-off Date" means, in respect of any Index, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms, or, if "Correction Cut-off Date" is specified in the Issue Specific Terms to be applicable to any date on which the price of such Index is required to be determined, but no date is specified for the Correction Cut-off Date, then the Correction Cut-off Date for such Index and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Index on such day.

"**Declared Cash Dividend**" means, in relation to any Share<sub>i</sub> and a Dividend Amount, 100 per cent. of the Gross Cash Dividend per Share<sub>i</sub> declared by the Share Issuer to holders of record of a Share<sub>i</sub> on any record date occurring during the relevant Dividend Period.

"**Declared Cash Equivalent Dividend**" means, in respect of any Share<sub>i</sub>, 100 per cent. of the Gross Cash Equivalent Dividend per such Share<sub>i</sub> declared by such Share Issuer to holders of record of a Share<sub>i</sub> on any record date occurring during the relevant Dividend Period.

"Declared Dividend" means any Relevant Dividend declared by the relevant Share Issuer.

"**Derivatives Exchange**" means each exchange or quotation system specified as such in Part B (general terms) of the applicable Issue Specific Terms in respect of the Index-Linked Derivatives Contract, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in the Index-Linked Derivatives Contract has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the Index-Linked Derivatives Contract on such temporary substitute exchange or quotation system as on the original Derivatives Exchange).

## "Disrupted Day" means:

- (a) for any Unitary Index, any Scheduled Trading Day on which (i) a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session or (ii) a Market Disruption Event has occurred; or
- (b) for any Multi-Exchange Index, any Scheduled Trading Day on which (i) the Index Sponsor fails to publish the level of the Index (provided that the Calculation Agent may, in its reasonable discretion, determine that such event instead results in the occurrence of an Index Disruption), (ii) the Related Exchange fails to open for trading during its regular trading session or (iii) a Market Disruption Event has occurred.

"**Dividend Amount**" means an amount determined by the Calculation Agent for the Dividend Period in accordance with the following formula:

$$\sum_{t} \left( \sum_{i} \frac{n_{i_{t}} \times d_{i_{t}}}{D_{t}} \right)$$

Where:

" $\sum$ " means the sum of, such that:

- (i)  $\sum_{i} \frac{x_i \times y_i}{a}$ , where there are "n" number of different values for i, is defined by  $\left(\frac{x_1 \times y_1}{a}\right) + \left(\frac{x_2 \times y_2}{a}\right) + ... + \left(\frac{x_n \times y_n}{a}\right)$ ; and
- (ii)  $\sum_{t} \left( \sum_{i} x_{i_t} \right)$ , where there are "n" number of different values for i, and "m" number of different values for t, is defined by;

" $d_{i_t}$ " means, in respect of any Relevant Day<sub>t</sub> and each Share<sub>i</sub> comprised in the Index on such Relevant Day<sub>t</sub>:

- (i) if the Ex-Dividend Date in respect of a Relevant Dividend declared by the relevant Share Issuer to holders of record of such Share<sub>i</sub> falls on such Relevant Day<sub>t</sub>, an amount equal to such Relevant Dividend; or
- (ii) otherwise, zero (0).

" $\mathbf{D}_t$ " means, in respect of each Relevant Day<sub>t</sub>, the Official Index Divisor, as calculated and published by the Index Sponsor on such Relevant Day<sub>t</sub>, subject to Index Linked Provision 6.4 (*Failure to Publish*).

"i" means, in respect of each Relevant Day<sub>t</sub> and each share (each, a "**Share**<sub>i</sub>") that is comprised in the Index on such Relevant Day<sub>t</sub>, a positive integer (beginning from one) assigned to such Share<sub>i</sub>.

"  $n_{i_t}$ " means, in respect of any Relevant Day<sub>t</sub> and each Share<sub>i</sub> comprised in the Index on such Relevant Day<sub>t</sub>, the number of free-floating shares of such Share<sub>i</sub> as calculated and published by the Index Sponsor on such Relevant Day<sub>t</sub>, subject to the provisions set out in Index Linked Provision 6.4 (*Failure to Publish*).

"Relevant Day" means each weekday falling within the Dividend Period.

"t" means, in respect of each Relevant Day, (each, a "Relevant Day<sub>t</sub>") a positive integer (beginning from one) assigned to such Relevant Day<sub>t</sub>.

"**Dividend Mismatch Event**" means, and a Dividend Mismatch Event shall have occurred, if the amount actually paid or delivered by such Share Issuer to the holders of record of the relevant Share<sub>i</sub> is not equal to the Declared Dividend.

"Dividend Period" means each relevant period as specified in Part B (general terms) of the applicable Issue Specific Terms.

## "Early Closure" means:

- (a) for any Unitary Index, the closure on any Exchange Business Day of any relevant Exchange relating to Components that comprise 20 per cent. or more of the level of the relevant Index or any Related Exchange prior to its Scheduled Closing Time, unless such earlier closing time is announced by such Exchange or Related Exchange at least one-hour prior to the earlier of (i) the actual closing time for the regular trading session on such Exchange or Related Exchange on such Exchange Business Day and (ii) the submission deadline for orders to be entered into the Exchange or Related Exchange system for execution at the Valuation Time on such Exchange Business Day; or
- (b) for any Multi-Exchange Index, the closure on any Exchange Business Day with respect to such Multi-Exchange Index of the Exchange in respect of any Component, or the Related Exchange, prior to its Scheduled Closing Time unless such earlier closing time is announced by such Exchange or Related Exchange, as the case may be, at least one-hour prior to the earlier of (i) the actual closing time for the regular trading session on such Exchange or Related Exchange (as the case may be) on such Exchange Business Day and (ii) the submission deadline for orders to be entered into such Exchange or Related Exchange system for execution as at the relevant Valuation Time on such Exchange Business Day.

## "Exchange" means:

- (a) for any Unitary Index, each exchange or quotation system specified as such in Part B (general terms) of the applicable Issue Specific Terms for such Unitary Index, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in the Components underlying such Unitary Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the Components underlying such Unitary Index on such temporary substitute exchange or quotation system as on the original Exchange); or
- (b) for any Multi-Exchange Index, each exchange on which any Component of such Multi-Exchange Index is, in the determination of the Calculation Agent, principally traded, or as otherwise determined by the Calculation Agent, any successor to such Exchange or quotation system or any substitute exchange or quotation system to which trading in the Components underlying such Multi-Exchange Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity to the

Components underlying such Multi-Exchange Index on such temporary substitute exchange or quotation system as on the original Exchange).

## "Exchange Business Day" means:

- (a) for any Unitary Index, any Scheduled Trading Day on which each Exchange and each Related Exchange for such Unitary Index are open for trading during their respective regular trading sessions, notwithstanding any such Exchange or Related Exchange for such Unitary Index closing prior to its Scheduled Closing Time; or
- (b) for any Multi-Exchange Index, any Scheduled Trading Day on which (i) the Index Sponsor calculates and publishes the level of such Multi-Exchange Index and (ii) the Related Exchange for such Multi-Exchange Index is open for trading during its regular trading session, notwithstanding the Related Exchange for such Multi-Exchange Index closing prior to its Scheduled Closing Time.

#### "Exchange Disruption" means:

- (a) for any Unitary Index, any event (other than an Early Closure) that disrupts or impairs, as determined by the Calculation Agent, the ability of market participants in general to effect transactions in, or obtain market values for, (i) any Component on any relevant Exchange that comprise 20 per cent. or more of the level of such Unitary Index or (ii) futures or options contracts relating to such Unitary Index on any relevant Related Exchange; or
- (b) for any Multi-Exchange Index, any event (other than an Early Closure) that disrupts or impairs, as determined by the Calculation Agent, the ability of market participants in general to effect transactions in, or obtain market values for (i) any Component on the relevant Exchange in respect of such Component or (ii) futures or options contracts relating to such Multi-Exchange Index on the relevant Related Exchange.

"**Ex-Dividend Date**" means, in respect of a Relevant Dividend declared by the relevant Share Issuer to holders of record of such Share<sub>i</sub>, the date that such Share<sub>i</sub> is scheduled to commence trading ex-dividend on the exchange for such Share<sub>i</sub>, as determined by the Calculation Agent.

"Extraordinary Dividend" means, in respect of any Share, an amount per such Share which the Calculation Agent determines and characterises to be an extraordinary dividend.

"Failure to Publish", means, for the purposes of determining the value of  $n_{i_t}$  or  $D_t$  on any Relevant Day<sub>t</sub>, if the Index Sponsor fails (for any reason including, without limitation, an Index Disruption) to calculate and publish the number of free-floating shares in respect of any Share<sub>i</sub> or the Official Index Divisor on such Relevant Day<sub>t</sub>.

"Fallback Valuation Date" means, in respect of any Index, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms, or, if "Fallback Valuation Date" is specified in the Issue Specific Terms to be applicable to any date on which the level of such Index is required to be determined, but no date is specified for the Fallback Valuation Date, then the Fallback Valuation Date for such Index and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Index on such day.

"Final Index Level" means an amount equal to the closing price for the relevant Index on the relevant Final Valuation Date, as determined by the Calculation Agent.

"Gross Cash Dividend" means, in respect of a Share<sub>i</sub>, a sum before the withholding or deduction of taxes at the source by or on behalf of any Applicable Authority, and shall exclude any imputation or other credits, refunds or deductions granted by an Applicable Authority and any taxes, credits, refunds or benefits imposed, withheld, assessed or levied thereon. In addition, "Gross Cash Dividend" shall exclude Extraordinary Dividends, if any, unless otherwise provided in Part B (general terms) of the applicable Issue Specific Terms.

"Gross Cash Equivalent Dividend" means the cash value of any stock dividend per Share<sub>i</sub> as declared by the relevant Share Issuer (whether or not such stock dividend comprises shares that are not the ordinary shares of the relevant Share Issuer) or, if no cash value of the stock dividend per Share<sub>i</sub> is declared by the relevant Share Issuer, the cash value of such stock dividend per Share<sub>i</sub> as determined by the Calculation Agent, calculated by reference to the opening price of such Share<sub>i</sub> on the relevant Ex-Dividend Date applicable to such stock dividend, provided that if holders of record of such Share<sub>i</sub> may elect between receiving a Declared Cash Dividend or a Declared Cash Equivalent Dividend, the dividend shall be deemed to be a Declared Cash Dividend instead.

"Hedge Positions" means any arrangements entered into by the Hedging Entity at any time in order to hedge the payment obligations of the Issuer, on an individual or on a portfolio basis, under the Index Linked Securities including, without limitation, any acquisition, purchase, sale, entry into or maintenance of one or more (a) positions or contracts in securities, options, future, foreign exchange or derivatives, (b) stock loan transactions or (c) any other instruments or arrangements (howsoever described).

"Hedging Disruption" means, in respect of any Index Linked Securities, that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in good faith, to (a) hold, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant Index Linked Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

"Hedging Entity" means the Calculation Agent or another member of the Goldman Sachs Group.

"Increased Cost of Hedging" means that the Hedging Entity would incur a materially increased costs (as compared with circumstances existing on the Issue Date), including, without limitation, increased tax (including any potential tax which the Calculation Agent considers may arise), duty, expense or fee (other than brokerage commissions) to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the Hedging Entity's obligations with respect to the Index Linked Securities, or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), provided that

any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Hedging Entity shall not be deemed an Increased Cost of Hedging.

"Index" means, in respect of an issue of Index Linked Securities relating to a single Index, the Index, and in respect of an issue of Index Linked Securities relating to an Index Basket, each Basket Index, in each case specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"Index Adjustment Event" has the meaning given thereto in Index Linked Provision 3.2 (Occurrence of an Index Adjustment Event).

"Index Basket" means, subject to adjustment in accordance with these Index Linked Provisions, a basket composed of Indices in the relative proportions or numbers of Indices, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"**Index Cancellation**" has the meaning given thereto in Index Linked Provision 3.2 (*Occurrence of an Index Adjustment Event*).

"Index Disruption" has the meaning given thereto in Index Linked Provision 3.2 (Occurrence of an Index Adjustment Event).

"Index-Linked Derivatives Contract" means any futures, options or other derivatives contract relating to one or more Indices as specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"Index-Linked Derivatives Contract Adjustment Event" means, and shall have occurred if, the Calculation Agent determines that, any term of the relevant Index-Linked Derivatives Contract has been changed or modified by the Derivatives Exchange (including if it is permanently discontinued), and the Calculation Agent determines that such change or modification could have a material effect on the Securities.

"Index Linked Securities" means Securities specified as "Index Linked Securities" in Part B (general terms) of the applicable Issue Specific Terms.

"**Index Modification**" has the meaning given thereto in Index Linked Provision 3.2 (*Occurrence of an Index Adjustment Event*).

"Index Multiplier" means, in respect of the relevant Reference Date and an Index, an amount determined by the Calculation Agent in its reasonable discretion by reference to the realised dividend yield of the relevant Index.

"Index Sponsor" means, for any Index, the entity specified in Part B (general terms) of the applicable Issue Specific Terms, and, if not specified, the corporation or other entity that, as determined by the Calculation Agent, (i) is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Index, and (ii) announces (directly or through an agent) the level of such Index on a regular basis during each Scheduled Trading Day.

#### "Market Disruption Event" means:

(a) for any Unitary Index, the occurrence or existence of (i) a Trading Disruption, (ii) an Exchange Disruption, which, in either case, the Calculation Agent determines is material,

at any time during the one-hour period that ends at the relevant Valuation Time, or (iii) an Early Closure.

For the purposes of determining whether a Market Disruption Event in respect of any Unitary Index exists at any time, if a Market Disruption Event occurs in respect of a Component included in such Unitary Index at any time, then the relevant percentage contribution of such Component to the level of such Unitary Index shall be based on a comparison of (x) the portion of the level of such Unitary Index attributable to such Component and (y) the overall level of such Unitary Index, in each case, immediately before the occurrence of such Market Disruption Event;

(b) for any Multi-Exchange Index:

#### Either:

- (i) the occurrence or existence, in respect of any Component, of:
  - (A) a Trading Disruption in respect of such Component, which the Calculation Agent determines is material, at any time during the one-hour period that ends at the relevant Valuation Time in respect of the Exchange on which such Component is principally traded;
  - (B) an Exchange Disruption in respect of such Component, which the Calculation Agent determines is material at any time during the one-hour period that ends at the relevant Valuation Time in respect of the Exchange on which such Component is principally traded; or
  - (C) an Early Closure in respect of such Component;

and

(ii) the aggregate of all Components in respect of which a Trading Disruption, an Exchange Disruption or an Early Closure occurs or exists comprises 20 per cent. or more of the level of such Multi-Exchange Index;

or

(iii) the occurrence or existence, in each case in respect of futures or options contracts relating to such Multi-Exchange Index, of (I) a Trading Disruption, or (II) an Exchange Disruption, which, in either case, the Calculation Agent determines is material, at any time during the one-hour period that ends at the Valuation Time in respect of the Related Exchange, or (III) an Early Closure.

For the purposes of determining whether a Market Disruption Event exists in respect of a Multi-Exchange Index at any time, if an Early Closure, an Exchange Disruption, or a Trading Disruption occurs in respect of a Component at that time, then the relevant percentage contribution of such Component to the level of such Multi-Exchange Index shall be based on a comparison of (x) the portion of the level of such Multi-Exchange Index attributable to that Component and (y) the overall level of such Multi-Exchange Index, in each case, immediately before the occurrence of such Market Disruption Event;

(c) for any Index, any change in national or international financial, political or economic conditions or currency exchange rates or exchange controls, the effect of which is, in the determination of the Calculation Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the calculation or determination of any amount payable or deliverable under the terms and conditions of the Index Linked Securities.

"Maximum Days of Disruption" means in respect of Index Linked Securities that relate to:

- (a) a single Index, eight Scheduled Trading Days; or
- (b) an Index Basket and Part B (general terms) of the applicable Issue Specific Terms do not specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, eight Scheduled Trading Days; or
- (c) an Index Basket and Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Trading Day and Common Disrupted Day)" applies, eight Common Scheduled Trading Days,

or, in each case, such other number of Scheduled Trading Days or Common Scheduled Trading Days, as applicable specified in Part B (general terms) of the applicable Issue Specific Terms.

"Modified Postponement" has the meaning given thereto in Index Linked Provision 1.2(c) (Single Index and Averaging Reference Dates) or Index Linked Provision 1.4(c) (Index Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

"Multi-Exchange Index" means an Index whose Components are listed on two or more Exchanges, as determined by the Calculation Agent.

"No Adjustment" has the meaning given thereto in Index Linked Provision 1.1(c) (Single Index and Reference Dates), Index Linked Provision 1.2(d) (Single Index and Averaging Reference Dates), Index Linked Provision 1.3(c) (Index Basket and Reference Dates — Individual Scheduled Trading Day and Individual Disrupted Day), Index Linked Provision 1.4(d) (Index Basket and Averaging Reference Dates — Individual Scheduled Trading Day and Individual Disrupted Day), Index Linked Provision 1.5(b) (Index Basket and Reference Dates — Common Scheduled Trading Day but Individual Disrupted Day) and Index Linked Provision 1.6(c) (Index Basket and Reference Dates — Common Scheduled Trading Day and Common Disrupted Day), as applicable.

"Official Index Divisor" means, in respect of the Index, the value calculated by the Index Sponsor as being necessary to ensure that the numerical value of the Index remains unchanged after any change(s) in the composition of the Index. The value of the Index after any change in its composition is divided by the Official Index Divisor to ensure that the value of the Index returns to its normalised value.

"Omission" has the meaning given thereto in Index Linked Provision 1.2(a) (Single Index and Averaging Reference Dates) or Index Linked Provision 1.4(a) (Index Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

"Options Exchange" means, if relevant, the exchange or quotation system specified as such in Part B (general terms) of the applicable Issue Specific Terms, any successor to such exchange or quotation system or any substitute exchange or quotation system, to which trading in options contracts relating to the relevant Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to such options contracts on such temporary substitute exchange or quotation system as on the original Options Exchange) or, if no such exchange or quotation system is specified in Part B (general terms) of the applicable Issue Specific Terms, the Related Exchange (if such Related Exchange trades options contracts relating to the relevant Index) or, if more than one such Related Exchange is specified in Part B (general terms) of the applicable Issue Specific Terms, the Related Exchange selected by the Calculation Agent as the primary market for listed options contracts relating to the relevant Index.

"Postponement" has the meaning given thereto in Index Linked Provision 1.2(b) (Single Index and Averaging Reference Dates) or Index Linked Provision 1.4(b) (Index Basket and Averaging Reference Dates – Individual Scheduled Trading Day and Individual Disrupted Day), as applicable.

"**Reference Date**" means each Scheduled Reference Date, as adjusted in accordance with these Index Linked Provisions.

"Related Exchange" means for any Unitary Index or Multi-Exchange Index, each exchange or quotation system, if any, specified in Part B (general terms) of the applicable Issue Specific Terms, any successor to such exchange or quotation system or any substitute exchange or quotation system to which trading in futures or options contracts relating to such Unitary Index or Multi-Exchange Index has temporarily relocated (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to such Unitary Index or Multi-Exchange Index on such temporary substitute exchange or quotation system as on the original Related Exchange), provided, however, that where "All Exchanges" is specified as the Related Exchange, "Related Exchange" shall mean each exchange or quotation system where trading has a material effect on the overall market for futures or options contracts relating to such Unitary Index or Multi-Exchange Index, as determined by the Calculation Agent, or, in any such case, any transferee or successor exchange of such exchange or quotation system (provided that the Calculation Agent has determined that there is comparable liquidity relative to the futures or options contracts relating to such Index on such temporary substitute exchange or quotation system as on the original Related Exchange).

"**Relevant Date**" has the meaning given thereto in Index Linked Provision 2 (*Fallback Valuation Date*).

"Relevant Value" means, in respect of an Index and a Scheduled Trading Day, a Reference Date, a Common Scheduled Trading Day or an Averaging Reference Date, as applicable, the Exchange traded or quoted price as of the relevant Valuation Time on that Scheduled Trading Day of each Component comprised in such Index or, if an event giving rise to a Disrupted Day (as defined in Share Linked Provision 8 (*Definitions*)) has occurred in respect of any relevant Component that is a share on that Scheduled Trading Day, the value for the relevant Component on that Scheduled Trading Day, Reference Date, Common Scheduled Trading Day or Averaging

Reference Date, as applicable, as determined by the Calculation Agent in its reasonable discretion taking into account any relevant market conditions at the time of such determination.

"Scheduled Averaging Reference Date" means, in respect of an Index, each Scheduled Reference Date, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Scheduled Closing Time" means, if relevant, in respect of an Index and in respect of an Exchange or Related Exchange and a Scheduled Trading Day, the scheduled weekday closing time of such Exchange or Related Exchange on such Scheduled Trading Day, without regard to after hours or any other trading outside of the regular trading session hours.

"Scheduled Reference Date" means, in respect of an Index, the Final Valuation Date and/or any other date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

# "Scheduled Trading Day" means:

- (a) in respect of any Unitary Index, any day on which each Exchange and each Related Exchange for such Unitary Index specified in Part B (general terms) of the applicable Issue Specific Terms are scheduled to be open for trading for their respective regular trading sessions;
- (b) in respect of any Multi-Exchange Index, any day on which (i) the Index Sponsor is scheduled to publish the level of such Multi-Exchange Index and (ii) the Related Exchange for such Multi-Exchange Index is scheduled to be open for trading for its regular trading session.

"Scheduled Valuation Date" means, in respect of an Index, any original date that, but for such day not being a Scheduled Trading Day for such Index or for such day being a Disrupted Day for such Index, would have been a Valuation Date.

"Settlement Cycle" means for any Unitary Index or Multi-Exchange Index, the period of Component Clearance System Business Days following a trade in the Components underlying such Unitary Index or Multi-Exchange Index on the Exchange in which settlement will customarily occur according to the rules of such Exchange (or, if there are multiple Exchanges in respect of an Index, the longest such period).

"Settlement Disruption Event" means, in respect of a Component of an Index, an event that the Calculation Agent determines is beyond the control of the Issuer and/or its affiliates as a result of which the relevant Component Clearance System cannot clear the transfer of such Component.

"Share<sub>i</sub>" has the meaning given thereto in the definition of the "Dividend Amount".

"Share Issuer" means, in respect of each Share, the Issuer of such Share.

"Successor Index" has the meaning given thereto in Index Linked Provision 3.1 (Successor Index Sponsor or Successor Index).

"Successor Index Sponsor" has the meaning given thereto in Index Linked Provision 3.1 (Successor Index Sponsor or Successor Index).

"Termination Amount" means an amount in respect of each Index Linked Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of that Index Linked Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant Index Linked Security and, if applicable, accrued interest. The Termination Amount will be rounded in the same manner as the Settlement Amount. When determining the Termination Amount, the Calculation Agent may, inter alia, also consider the probability of default of the Issuer based on the credit spreads quoted on the market or on the yields of bonds of the Issuer that are traded with sufficient liquidity at the time of determining the Termination Amount. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

# "Trading Disruption" means:

- (a) in respect of any Unitary Index, any suspension of, or limitation imposed on, trading by the relevant Exchange or Related Exchange or otherwise, and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise, (i) relating to Components that comprise 20 per cent. or more of the level of such Unitary Index on any relevant Exchange or (ii) in futures or options contracts relating to such Unitary Index on any relevant Related Exchange; or
- (b) in respect of any Multi-Exchange Index, any suspension or limitation imposed on trading by the relevant Exchange or Related Exchange or otherwise and whether by reason of movements in price exceeding limits permitted by the relevant Exchange or Related Exchange or otherwise (i) relating to any Component on the Exchange in respect of such Component or (ii) in futures or options contracts relating to Multi-Exchange Index on the Related Exchange.

"Underlying Price" means, in respect of a Calculation Date, the relevant level of that Index as specified in the Issue Specific Terms.

"Unitary Index" means an Index whose Components are listed on a single Exchange, as determined by the Calculation Agent.

"Valid Date" means a Scheduled Trading Day that is not a Disrupted Day and on which another Averaging Reference Date does not or is not deemed to occur.

"Valuation Time" means (unless otherwise, and to the extent, specified in Part B (general terms) of the applicable Issue Specific Terms):

(a) in respect of any Unitary Index, (i) for the purposes of determining whether a Market Disruption Event has occurred in respect of (I) any Component, the Scheduled Closing Time on the Exchange in respect of such Component (provided that, if the relevant Exchange closes prior to its Scheduled Closing Time, then the Valuation Time shall be such actual closing time), and (II) any options contracts or futures contracts on such Unitary Index, the close of trading on the Related Exchange, and (ii) in all other

- circumstances, the time at which the official closing level of such Unitary Index is calculated and published by the Index Sponsor; or
- (b) in respect of any Multi-Exchange Index, (i) for the purposes of determining whether a Market Disruption Event has occurred in respect of (I) any Component, the Scheduled Closing Time on the Exchange in respect of such Component (provided that, if the relevant Exchange closes prior to its Scheduled Closing Time, then the Valuation Time shall be such actual closing time), and (II) any options contracts or futures contracts on such Multi-Exchange Index, the close of trading on the Related Exchange, and (ii) in all other circumstances, the time at which the official closing level of such Multi-Exchange Index is calculated and published by the Index Sponsor.

# Annex to General Conditions - FX Linked Provisions

### Adjustment, Modification and Disruption Provisions for FX Linked Securities

- 1. Consequences of Non-Calculation Dates
- 1.1 Single Currency Pair and Reference Dates
- 1.2 Single Currency Pair and Averaging Reference Dates
- 1.3 Currency Pair Basket and Reference Dates Individual Calculation Date
- 1.4 Currency Pair Basket and Averaging Reference Dates Individual Calculation Date
- 1.5 Currency Pair Basket and Reference Dates Common Calculation Date
- 2. Adjustments and Early Redemption
- 2.1 Successor Currency
- 2.2 Substitute Fixing Price Sponsor
- 2.3 Occurrence of an Additional Disruption Event
- 2.4 Early Redemption
- 3. Administrator/Benchmark Event
- 4. **Definitions**

#### 1. Consequences of Non-Calculation Dates

#### 1.1 Single Currency Pair and Reference Dates

Where the FX Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Currency Pair, and, if the Calculation Agent determines that any Scheduled Reference Date in respect of such Currency Pair is not a Calculation Date, then the Reference Date for such Currency Pair shall be the first succeeding Calculation Date, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement in respect of such Currency Pair immediately following such Scheduled Reference Date is not a Calculation Date for such Currency Pair. In that case:

- (a) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for such Currency Pair, notwithstanding the fact that such day is not a Calculation Date for such Currency Pair; and
- (b) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (b) shall be deemed to be the FX Rate in respect of the relevant Reference Date,

#### provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for the relevant Currency Pair shall be the Scheduled Reference Date, notwithstanding the fact that such day is not a Calculation Date for such Currency Pair, and the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (c) shall be deemed to be the FX Rate in respect of the relevant Reference Date.

#### 1.2 Single Currency Pair and Averaging Reference Dates

Where the FX Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Currency Pair, and, if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of such Currency Pair is not a Calculation Date and, if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is:

(a) "Omission", then such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date, provided that, if through the operation of this provision there would not be any Averaging Reference Dates, then the Averaging

Reference Date for such Currency Pair shall be the first succeeding FX Business Day following the final Scheduled Averaging Reference Date that the Calculation Agent determines is a Calculation Date for such Currency Pair, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement in respect of such Currency Pair immediately following such final Scheduled Averaging Reference Date is not a Calculation Date for such Currency Pair. In that case:

- (i) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Currency Pair, notwithstanding the fact that such day is not a Calculation Date for such Currency Pair; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date;
- (b) "Postponement", then the relevant Averaging Reference Date for such Currency Pair shall be the first succeeding FX Business Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is a Calculation Date for such Currency Pair, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement in respect of such Currency Pair immediately following such Scheduled Averaging Reference Date is not a Calculation Date for such Currency Pair. In that case:
  - (i) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Currency Pair, notwithstanding the fact that such day is not a Calculation Date for such Currency Pair; and
  - (ii) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date;
- (c) "Modified Postponement", then the relevant Averaging Reference Date for such Currency Pair shall be the first succeeding Valid Date. If the first succeeding Valid Date has not occurred as of the relevant Valuation Time on each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement immediately following such Scheduled Averaging Reference Date that, but for the occurrence of

another Averaging Reference Date or non-Calculation Date for such Currency Pair, would have been the relevant Averaging Reference Date, then:

- (i) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Currency Pair, notwithstanding the fact that such day is already an Averaging Reference Date or is not a Calculation Date for such Currency Pair; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date,

### provided that:

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then the relevant Averaging Reference Date for such Currency Pair shall be the Scheduled Averaging Reference Date, notwithstanding the fact that such day is not a Calculation Date for such Currency Pair, and the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Currency Pair on that Scheduled Averaging Reference Date, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date; and
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Calculation Date in respect of such Currency Pair and, Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then the consequence of "No Adjustment" shall apply.

#### 1.3 Currency Pair Basket and Reference Dates – Individual Calculation Date

Where the FX Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Currency Pair Basket and such Issue Specific Terms specify that "Individual Calculation Date" applies, and if the Calculation Agent determines that any Scheduled Reference Date in respect of any Basket Currency Pair is not a Calculation Date for such Basket Currency Pair:

- (a) for each other Basket Currency Pair for which the Calculation Agent determines that such Scheduled Reference Date is a Calculation Date, the Reference Date for such Basket Currency Pair shall be such Scheduled Reference Date;
- (b) for each Basket Currency Pair in the Currency Pair Basket for which the Calculation Agent determines that such Scheduled Reference Date is not a Calculation Date, the

Reference Date for each such Basket Currency Pair shall be the first succeeding FX Business Day which the Calculation Agent determines is a Calculation Date for each such Basket Currency Pair, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement immediately following such Scheduled Reference Date is not a Calculation Date for any such Basket Currency Pair. In that case:

- (i) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Reference Date shall be deemed to be the Reference Date for the relevant Basket Currency Pair, notwithstanding the fact that such day is not a Calculation Date for the relevant Basket Currency Pair; and
- (ii) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (ii) shall be deemed to be the FX Rate in respect of such Reference Date,

#### provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Currency Pair shall be the Scheduled Reference Date, notwithstanding the fact that such day is not a Calculation Date for one or more such Basket Currency Pairs, and the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for any such Basket Currency Pair on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent shall be deemed to be the FX Rate in respect of the relevant Reference Date.

# 1.4 Currency Pair Basket and Averaging Reference Dates – Individual Calculation Date

Where the FX Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Currency Pair Basket and if the Calculation Agent determines that any Scheduled Averaging Reference Date in respect of any Basket Currency Pair is not a Calculation Date for such Basket Currency Pair, then:

(a) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Omission**", such Scheduled Averaging Reference Date will be deemed not to be a relevant Averaging Reference Date for such Basket Currency Pair, provided that, if through the operation of this provision there would not be any Averaging Reference Dates for such Basket Currency Pair, then the sole Averaging Reference Date for such Basket Currency Pairs shall be determined by reference to the final Scheduled Averaging Reference Date as follows:

- (i) for each Basket Currency Pair for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is a Calculation Date, the Averaging Reference Date for such Basket Currency Pair shall be such final Scheduled Averaging Reference Date; and
- (ii) for each Basket Currency Pair for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is not a Calculation Date, the Averaging Reference Date for such Basket Currency Pair shall be the first succeeding FX Business Day following such final Scheduled Averaging Reference Date that the Calculation Agent determines is a Calculation Date in respect of such Basket Currency Pair, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement in respect of such Basket Currency Pair immediately following such final Scheduled Averaging Reference Date is not a Calculation Date for such Basket Currency Pair. In that case:
  - (A) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Currency Pair, notwithstanding the fact that such day is not a Calculation Date for such Basket Currency Pair; and
  - (B) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date;
- (b) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "**Postponement**", then:
  - (i) for each Basket Currency Pair for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Calculation Date, the Averaging Reference Date for such Basket Currency Pair shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Currency Pair for which the Calculation Agent determines that such Scheduled Averaging Reference Date is not a Calculation Date, the relevant Averaging Reference Date for such Basket Currency Pair shall be the first succeeding FX Business Day following such Scheduled Averaging Reference Date that the Calculation Agent determines is a Calculation Date for such Basket Currency Pair, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement in respect of such Basket Currency Pair immediately following

- such Scheduled Averaging Reference Date is not a Calculation Date for such Basket Currency Pair. In that case:
- (A) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Currency Pair, notwithstanding the fact that such day is not a Calculation Date for such Basket Currency Pair; and
- (B) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation Agent pursuant to this paragraph (B) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date;
- (c) if in Part B (general terms) of the applicable Issue Specific Terms the consequence specified is "Modified Postponement", then:
  - (i) for each Basket Currency Pair for which the Calculation Agent determines that such Scheduled Averaging Reference Date is a Calculation Date, the Averaging Reference Date for such Basket Currency Pair shall be such Scheduled Averaging Reference Date; and
  - (ii) for each Basket Currency Pair for which the Calculation Agent determines that such final Scheduled Averaging Reference Date is not a Calculation Date, the relevant Averaging Reference Date shall be the first succeeding Valid Date. If the first succeeding Valid Date has not occurred as of the relevant Valuation Time on each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement immediately following such Scheduled Averaging Reference Date that, but for the occurrence of another Averaging Reference Date or not being a Calculation Date for such Basket Currency Pair, would have been the relevant Averaging Reference Date, then:
    - (A) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Averaging Reference Date shall be deemed to be the Averaging Reference Date for such Basket Currency Pair, notwithstanding the fact that such day is already an Averaging Reference Date or is not a Calculation Date for such Basket Currency Pair; and
    - (B) the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such exchange rate as determined by the Calculation

Agent pursuant to this paragraph (B) shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date,

#### provided that:

- (d) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Averaging Reference Date for each Basket Currency Pair shall be the Scheduled Averaging Reference Date, notwithstanding the fact that such day is not a Calculation Date for such Basket Currency Pair, and the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that Averaging Reference Date, taking into account any relevant market conditions at the time of such determination, and such determination by the Calculation Agent shall be deemed to be the FX Rate in respect of the relevant Averaging Reference Date; and
- (e) if the Calculation Agent determines that any Scheduled Averaging Reference Date is not a Calculation Date in respect of any Basket Currency Pair and, Part B (general terms) of the applicable Issue Specific Terms do not specify the consequence, then the consequence of "No Adjustment" shall apply.

#### 1.5 Currency Pair Basket and Reference Dates – Common Calculation Date

Where the FX Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Currency Pair Basket and such Issue Specific Terms specify that "Common Calculation Date" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines that any Scheduled Reference Date is a Common Calculation Date, then the Reference Date for each Basket Currency Pair shall be such Scheduled Reference Date; and
- (b) if the Calculation Agent determines that any Scheduled Reference Date is not a Common Calculation Date, then the Reference Date for each Basket Currency Pair shall be the first succeeding FX Business Day following such Scheduled Reference Date which the Calculation Agent determines is a Common Calculation Date, unless the Calculation Agent determines that each of the consecutive FX Business Days equal in number to the Maximum Days of Postponement immediately following such Scheduled Reference Date is not a Common Calculation Date. In that case:
  - (i) the FX Business Day which falls such number of FX Business Days equal to the Maximum Days of Postponement after the relevant Scheduled Reference Date shall be deemed to be such Reference Date for each Basket Currency Pair, notwithstanding the fact that such day is not a Calculation Date for one or more Basket Currency Pairs, (such Basket Currency Pairs being "Affected Basket Currency Pairs" for such Reference Date, and each such Basket Currency Pair being an "Affected Basket Currency Pair");

- (ii) for each Basket Currency Pair other than an Affected Basket Currency Pair, the FX Rate for such Currency Pair shall be the official fixing rate for such Currency Pair published by the relevant Fixing Price Sponsor on such FX Business Day, as determined, in its reasonable discretion, by the Calculation Agent; and
- (iii) for each Affected Basket Currency Pair, the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that FX Business Day, taking into account any relevant market conditions at the time of such determination, and such determination by the Calculation Agent pursuant to this paragraph (iii) shall be deemed to be the FX Rate in respect of the relevant Reference Date,

#### provided that:

(c) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Currency Pair shall be the Scheduled Reference Date, and the Calculation Agent shall, in its reasonable discretion, determine the exchange rate for that Basket Currency Pair on that Reference Date, taking into account any relevant market conditions at the time of such determination, and such estimate by the Calculation Agent shall be deemed to be the FX Rate in respect of the relevant Reference Date.

#### 2. Adjustments and Early Redemption

#### 2.1 Successor Currency

If a Base Currency or a Reference Currency is replaced in its function as legal tender of the country or jurisdiction, or of the countries or jurisdictions, which, in each case, support the public authority, institution, or other entity issuing that currency, with another currency or if a Base Currency or a Reference Currency is merged with a different currency into a common currency, the Calculation Agent may determine, in its reasonable discretion, that the affected currency shall be replaced for purposes of the FX Linked Securities with that other or common currency (the "Successor Currency"). If it determines appropriate in its reasonable discretion, the Calculation Agent may make any appropriate adjustments, if any, to any one or more of the terms of the FX Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the FX Linked Securities to account for the replacement of the relevant currency with the Successor Currency, and the Calculation Agent shall determine the effective date of that adjustment. If the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this FX Linked Provision 2.1 would produce a commercially reasonable result, it may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 2.4 (Early Redemption) below.

### 2.2 Substitute Fixing Price Sponsor

If the FX Rate or any relevant rate or price in respect of the relevant Currency Pair (including a Basket Currency Pair) is or are no longer calculated and published by the Fixing Price Sponsor, but by a different person, company, or institution which the Calculation Agent considers suitable

in its reasonable discretion (the "**Substitute Fixing Price Sponsor**"), the FX Rate in respect of a Currency Pair shall be calculated based on the corresponding price calculated and published by the Substitute Fixing Price Sponsor for that Currency Pair. The Calculation Agent is also entitled to replace the Fixing Price Sponsor by a Substitute Fixing Price Sponsor if the Calculation Agent determines in its reasonable discretion that the determination method and/or the relevant concept (including the publication of the relevant rates and prices) for the FX Rate has been materially changed.

If the Calculation Agent determines, in its reasonable discretion, that an entity is not a suitable successor to the Fixing Price Sponsor or there is no suitable successor to the Fixing Price Sponsor available, it may direct the Issuer to redeem the FX Linked Securities under FX Linked Provision 2.4 (*Early Redemption*) below.

### 2.3 Occurrence of an Additional Disruption Event

If the Calculation Agent has determined, in its reasonable discretion, that any Additional Disruption Event specified as applicable in Part B (general terms) of the applicable Issue Specific Terms has occurred, it may direct the Issuer to redeem the FX Linked Securities in accordance with FX Linked Provision 2.4 (*Early Redemption*) below.

# 2.4 Early Redemption

If following the occurrence of any of the relevant events listed in FX-Linked Provisions 2.1, 2.2 or 2.3 (*Adjustments and Early Redemption*) above, the Calculation Agent has directed the Issuer to redeem the FX Linked Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to Security Holders in accordance with Section 17 (*Notices*) of the General Conditions designating a termination date (the "**Termination Date**"). On the Termination Date, the Issuer shall redeem all, but not some only, of the FX Linked Securities and it shall pay an amount equal to the Termination Amount to each Security Holder in respect of each FX Linked Security held by it. Payment of the Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 (*Notices*) of the General Conditions.

#### 3. Administrator/Benchmark Event

If, in respect of an FX Rate, the Calculation Agent determines that, on or prior to any Reference Date or other relevant date, an Administrator/Benchmark Event Date has occurred in respect of such FX Rate and such Administrator/Benchmark Event in its reasonable discretion by the Calculation Agent has a material effect on the FX Linked Securities, then the FX Rate for the relevant date will be the exchange rate determined by reference to the Alternative Price Source(s) specified in the relevant Final Terms for such FX Rate (the "Fallback Reference Rate"), provided that if no Fallback Reference Rate is specified in the relevant Final Terms, or the Calculation Agent determines that:

(a) it (i) is or would be unlawful at any time under any applicable law or regulation, or (ii) would contravene any applicable licensing requirements, for the Calculation Agent to

perform the actions prescribed in these Conditions (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time); or

(b) the first paragraph above would not achieve a commercially reasonable result for any of the Issuer, the Calculation Agent or the Security Holders,

it may direct the Issuer to redeem the Securities in accordance with FX-Linked Provision 2.4 (*Early Redemption*) above.

#### 4. Definitions

"Additional Disruption Events" means a Change in Law, a Hedging Disruption or an Increased Cost of Hedging (each an "Additional Disruption Event") specified as such in the relevant Final Terms

"Administrator/Benchmark Event" means, in respect of an FX Rate, the occurrence or existence, as determined by the Calculation Agent, of any of the following events in respect of such FX Rate:

- (a) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of an FX Rate or the administrator or sponsor of an FX Rate has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, or any prohibition by a relevant competent authority or other relevant official body, in each case with the effect that the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity is not, or will not be, permitted under any applicable law or regulation to use the FX Rate to perform its or their respective obligations under the FX Linked Securities; or
- (b) any material change to the methodology or formula for the FX Rate or any other means of calculating the FX Rate, as determined by the Calculation Agent ("Material Methodology Change Event").

"Administrator/Benchmark Event Date" means, in respect of an FX Rate, the date determined by the Calculation Agent to be:

- (a) in the case of paragraph (a) of the definition of "Administrator/Benchmark Event", the date from which the FX Rate may no longer be used under any applicable law or regulation by Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity to perform its or their respective obligations under the Securities; or
- (b) in the case of paragraph (b) of the definition of "Administrator/Benchmark Event", the date on which the change to the methodology or formula for the FX Rate becomes effective

or, in each case, if such date occurs before the Initial Valuation Date, the Initial Valuation Date.

"Affected Basket Currency Pair" and "Affected Basket Currency Pairs" have the meaning given thereto in FX Linked Provision 1.5(b)(i) (Currency Pair Basket and Reference Dates – Common Calculation Date).

"Base Currency" has the meaning given in Part B (general terms) of the applicable Issue Specific Terms.

"Base Country" means the country or jurisdiction, or a group of countries or jurisdictions, which support the public authority, institution or other entity issuing the Base Currency, as determined, in its reasonable discretion, by the Calculation Agent.

"Basket Currency Pair" and "Basket Currency Pairs" means each Currency Pair which is a component of a Currency Pair Basket, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Bloomberg Page" means, in respect of a Currency Pair and any designated page, the display page so designated on the Bloomberg<sup>®</sup> service (or such other page as may replace that page on that service (or replace such services) for the purpose of displaying a currency exchange rate in respect of that Currency Pair, as determined, in its reasonable discretion, by the Calculation Agent).

"Calculation Date" means, unless otherwise specified in the applicable Issue Specific Terms, in respect of a Currency Pair, either (i) a Publication Calculation Date or (ii) a Transaction Calculation Date, as specified in Part B (general terms) of the applicable Issue Specific Terms, in each case on which no FX Disruption Event has occurred or is continuing.

"Change in Law" means that either (a) on or after the Issue Date, due to (i) the adoption or announcement of or any change in any applicable law or regulation (including without limitation, any tax law and any Sanctions Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or any related Hedge Positions), or (ii) the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or relevant Clearing System) of any applicable law or regulation (including any action taken by a taxing authority), (x) it has become illegal for the Hedging Entity to hold, acquire or dispose of the Hedge Positions relating to such FX Linked Securities, or (y) the Calculation Agent determines that the Hedging Entity, the Issuer and/or any of its affiliates will incur a materially increased cost in performing its obligations under the FX Linked Securities (including, without limitation, due to any increase in tax liability, decrease in tax benefit or other adverse effect on its tax position), (b) it has, as a result of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the promulgation of regulations thereunder or the interpretation of such laws and/or regulations by relevant authorities (together, the "Dodd-Frank Act") or otherwise become illegal for the Hedging Entity to hold interests in any of the relevant exchange rates or any related assets or the Dodd-Frank Act makes the holding of any Hedge Positions illegal or inadvisable, or materially increases the costs of holding such assets.

"Calculation Hours" has the meaning given in Part B (general terms) of the applicable Issue Specific Terms.

"Common Calculation Date" means, in respect of Basket Currency Pairs, each day which is a Calculation Date for all Basket Currency Pairs.

"Currency Pair" means, in respect of any FX Linked Security, the Reference Currency and the Base Currency specified in Part B (general terms) of the applicable Issue Specific Terms.

"Currency Pair Basket" means a basket composed of Currency Pairs specified in Part B (general terms) of the applicable Issue Specific Terms.

"Fixing Price Sponsor" means, in respect of a Currency Pair, the entity specified in Part B (general terms) of the applicable Issue Specific Terms (or its successor or replacement, as determined, in its reasonable discretion, by the Calculation Agent) and, if not specified, the corporation or other entity that, as determined, in its reasonable discretion, by the Calculation Agent, is responsible for setting the official fixing rate for such Currency Pair.

"FX Business Day" means, unless otherwise specified in the applicable Issue Specific Terms, in respect of an FX Rate, each day (other than Saturday or Sunday) on which commercial banks are open for business (including dealings in foreign exchange in accordance with the practice of the foreign exchange market) in the principal financial centre of the Reference Currency and the Base Currency, and to the extent that the Reference Currency or the Base Currency is euro, a day that is also a TARGET Settlement Day.

"FX Disruption Event" means the occurrence of any of the following events:

- (a) *Dual Exchange Rate Event:* Any relevant currency exchange rate relevant to determine the FX Rate for a Currency Pair splits into dual or multiple currency exchange rates;
- (b) *Inconvertibility Event:* An event has occurred in or affecting any jurisdiction that generally makes it impossible to convert any Reference Currency into the Base Currency, or the Base Currency to the Reference Currency, through customary legal channels;
- (c) Non-Transferability Event: An event has occurred in or affecting any Reference Country or Base Country that generally makes it impossible to deliver (i) the Base Currency from accounts inside the Reference Country to accounts outside the Reference Country or (ii) the Base Currency between accounts inside the Reference Country for the Reference Currency or to a party that is a non-resident of the Reference Country;
- (d) Governmental Authority Default: A default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any Governmental Authority, including, but not limited to, (i) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee, (ii) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee, or (iii) the amendment or modification of the terms and conditions of payment of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee

without the consent of all holders of such obligation. For these purposes, the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such Governmental Authority to issue or enter into such security, indebtedness, or guarantee.;

- (e) Exchange Rate Unavailability or Illiquidity Event: It is or becomes impossible or not reasonably practicable for the Calculation Agent or its affiliates to obtain any relevant currency exchange rate relevant to determine the FX Rate for a Currency Pair from the source typically used for that rate, or to obtain a firm quote for that currency exchange rate:
- (f) *Nationalisation Event:* Any expropriation, confiscation, requisition, nationalisation or other action by a relevant governmental authority which deprives the Issuer or its affiliates of all or substantially all of its assets in any relevant jurisdiction;
- (g) *Currency Merger:* If a relevant currency ceases to exist and is replaced by a new currency;
- (h) *Banking restrictions*: Any suspension or a material restriction of banking transactions in the Reference Country or the Base Country;
- (i) Trading Restrictions: the suspension or a material restriction of trading:
  - (i) in the relevant Reference Currency or Base Currency;
  - (ii) in futures or option contracts in respect to the relevant Reference Currency or Base Currency on any relevant futures exchange where such contracts are usually traded;
  - (iii) due to the order of a public authority or of any relevant futures exchange or due to a moratorium for banking transactions in the country in which the futures exchanges is domiciled; or
  - (iv) due to other circumstances that are comparable to the aforementioned circumstances;
- (j) Transaction restrictions: Public or other governmental measures in the Reference Country or the Base Country, or their announcement, through which Goldman Sachs is negatively affected in its ability to enter into or hold transactions in the relevant Reference Currency or Base Currency;
- (k) Cross-rate disruption: In the case that the determination of the relevant Currency Pair by way of a cross rate calculation, the suspension or restriction of foreign exchange trading in at least one of the currencies of the currency pairs used for the cross rate calculation (including options or futures contracts) and/or the restriction of the convertibility of the currencies or currency pairs and/or the economic impossibility to obtain a conversion rate for any relevant currencies;

- (l) *Pricing disruption*: The occurrence of an event, which according to the determination by the Calculation Agent disrupts or negatively affects the general capability of market participants:
  - (i) to determine market values of the relevant Reference Currency or Base Currency; or
  - (ii) to carry out transactions with futures or option contracts in respect to the relevant Reference Currency or Base Currency on any relevant futures exchange where such contracts are usually traded, or to determine market values for such contracts there; or
- (m) Currency unavailability: The continuing occurrence of an event where the Issuer is obliged to make any payment under the Securities in a currency other than U.S. dollars and such currency or any successor currency is not available to the Issuer due to circumstances beyond the control of the Issuer and its affiliates (including, without limitation, due to the imposition of exchange controls or a disruption in the relevant currency markets), as determined by the Calculation Agent;
- (n) *Other disruptions*: any other events which are economically comparable to the events set out in paragraphs (a) to (n) above.

"**FX Linked Securities**" means Securities specified as "FX Linked Securities" in Part B (general terms) of the applicable Issue Specific Terms.

"**FX Rate**" means the exchange rate of one currency for another currency expressed as a number of units of Reference Currency per unit of Base Currency.

"Governmental Authority" means any de facto or de jure government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of a Reference Country (which with respect to the Euro shall include the European Union as well as any member state thereof from time to time whose currency is the Euro).

"Hedging Disruption" means, in respect of any FX Linked Securities, that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in good faith, to (a) hold, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant FX Linked Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

"Hedging Entity" means the Calculation Agent or another member of the Goldman Sachs Group.

"Hedge Positions" means any arrangements entered into by the Hedging Entity at any time in order to hedge the payment obligations of the Issuer, on an individual or on a portfolio basis,

under the FX Linked Securities including, without limitation, any acquisition, purchase, sale, entry into or maintenance of one or more (a) positions or contracts in securities, options, future, foreign exchange or derivatives, (b) stock loan transactions or (c) any other instruments or arrangements (howsoever described).

"Increased Cost of Hedging" means that the Hedging Entity would incur materially increased costs (as compared with circumstances existing on the Issue Date), including, without limitation, increased tax (including any potential tax which the Calculation Agent considers may arise), duty, expense or fee (other than brokerage commissions) to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the Hedging Entity's obligations with respect to the Securities, or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), **provided that** any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Hedging Entity shall not be deemed an Increased Cost of Hedging.

"Maximum Days of Postponement" means five FX Business Days or such other number of FX Business Days (or other type of days) specified in Part B (general terms) of the applicable Issue Specific Terms.

"Modified Postponement" has the meaning given thereto in FX Linked Provision 1.2(c) (Single Currency Pair and Averaging Reference Dates) or FX Linked Provision 1.4(c) (Currency Pair Basket and Averaging Reference Dates – Individual Calculation Date), as the case may be.

"No Adjustment" has the meaning given thereto in FX Linked Provision 1.1(c) (Single Currency Pair and Reference Dates), FX Linked Provision 1.2(d) (Single Currency Pair and Averaging Reference Dates), FX Linked Provision 1.3(c) (Currency Pair Basket and Reference Dates – Individual Calculation Date), FX Linked Provision 1.4(d) (Currency Pair Basket and Averaging Reference Dates – Individual Calculation Date) or FX Linked Provision 1.5(c) (Currency Pair Basket and Reference Dates – Common Calculation Date), as the case may be.

"Omission" has the meaning given thereto in FX Linked Provision 1.2(a) (Single Currency Pair and Averaging Reference Dates) or FX Linked Provision 1.4(a) (Currency Pair Basket and Averaging Reference Dates – Individual Calculation Date), as the case may be.

"**Postponement**" has the meaning given thereto in FX Linked Provision 1.2(b) (*Single Currency Pair and Averaging Reference Dates*) or FX Linked Provision 1.4(b) (*Currency Pair Basket and Averaging Reference Dates – Individual Calculation Date*), as the case may be.

"Publication Calculation Date" means, in respect of a Currency Pair, each day on which the Fixing Price Sponsor publishes the official fixing rate for such Currency Pair, as determined, in its reasonable discretion, by the Calculation Agent.

"Reference Country" means the country or jurisdiction, or a group of countries or jurisdictions, which support the public authority, institution or other entity issuing the Reference Currency, as determined, in its reasonable discretion, by the Calculation Agent.

"**Reference Date**" means each Scheduled Reference Date, as adjusted in accordance with these FX Linked Provisions.

"**Reference Dealers**" means four leading dealers in the relevant foreign exchange market, as determined, in its reasonable discretion, by the Calculation Agent.

"Sanctions Rules" means any applicable law, rule, regulation, judgment, order, sanction, directive or designation of any governmental, administrative, legislative or judicial authority or power, in each case, relating to any economic or financial sanctions and embargo programmes, including, but not limited to, those enacted, administered and/or enforced, from time to time, by (or by any agency or other authority of) the United States, the United Kingdom, the European Union (or any Member State thereof), Switzerland or the United Nations, and which financial sanctions and embargo programs may include (without limitation), those restrictions applicable to designated or blocked persons.

"Reuters Screen" means, in respect of a Currency Pair and any designated page, the display page so designated on the Reuters Monitor Money Rates Service (or such other page as may replace that page on that service (or replace such services) for the purpose of displaying a currency exchange rate in respect of that Currency Pair, as determined, in its reasonable discretion, by the Calculation Agent).

"Scheduled Averaging Date" means, in respect of a Currency Pair, any original date that, but for such day not being a Calculation Date for such Currency Pair, would have been an Averaging Date.

"Scheduled Averaging Reference Date" means, in respect of a Currency Pair, each Scheduled Reference Date, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Scheduled Reference Date" means, in respect of the FX Linked Security, the Final Valuation Date and/or any other date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Screen Page" means, in respect of a Currency Pair, the Reuters Screen, the Bloomberg Page or such other pricing source as specified in Part B (general terms) of the applicable Issue Specific Terms.

"TARGET Settlement Day" means any day on which TARGET2 (the Trans-European Automated Real-time Gross settlement Express Transfer System 2), or any successor thereto, is open.

"Transaction Calculation Date" means, in respect of a Currency Pair, each day (a) on which transactions in such Currency Pair are occurring in the global foreign exchange spot markets, as determined, in its reasonable discretion, by the Calculation Agent, and (b) which is a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments in the principal financial centres of the Reference Currency and the Base Currency, and to the extent that the Reference Currency or the Base Currency is euro, a day that is also a TARGET Settlement Day.

"Termination Amount" means an amount in respect of each FX Linked Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of that

FX Linked Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant FX Linked Security and, if applicable, accrued interest. The Termination Amount will be rounded in the same manner as the Settlement Amount. When determining the Termination Amount, the Calculation Agent may, *inter alia*, also consider the probability of default of the Issuer based on the credit spreads quoted on the market or on the yields of bonds of the Issuer that are traded with sufficient liquidity at the time of determining the Termination Amount. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

"Underlying Price" means the price determined as set out in the Issue Specific Terms.

"Valid Date" means a calendar day on which an FX Disruption Event has not occurred and on which another Averaging Reference Date does not or is not deemed to occur.

"Valuation Time" means, in respect of a Currency Pair, each time specified as such in Part B (general terms) of the applicable Issue Specific Terms.

#### Annex to General Conditions - Commodity Linked Provisions

#### Adjustment, Modification and Disruption Provisions for Commodity Linked Securities

- 1. Consequences of Non-Scheduled Commodity Business Days, Non-Common Scheduled Commodity Business Days or Disrupted Days
- 1.1 Single Commodity and Reference Dates
- 1.2 Commodity Basket and Reference Dates Individual Scheduled Commodity Business Day and Individual Disrupted Day
- 1.3 Commodity Basket and Reference Dates Common Scheduled Commodity Business Day but Individual Disrupted Day
- 1.4 Commodity Basket and Reference Dates Common Scheduled Commodity Business Day and Common Disrupted Day
- 2. Successor Entity calculates and reports a Commodity Reference Price
- 3. Corrections to Published Commodity Reference Prices
- 4. Fallback Valuation Date for a Single Commodity or Commodity Basket
- 5. Consequences of Disrupted Days and Disruption Events in respect of a Commodity Index
- 6. Adjustments for a Commodity Index
- 6.1 Successor Commodity Index Sponsor or Successor Commodity Index
- 6.2 Occurrence of a Commodity Index Adjustment Event
- 7. Corrections to published Closing Level in respect of a Commodity Index
- 8. Adjustments, Additional Disruption Events and Change in Law
- 8.1 Adjustments following Additional Disruption Events
- 8.2 Change of applicable Law
- 9. Early Redemption
- 10. General Definitions

# 1. Consequences of Non-Scheduled Commodity Business Days, Non-Common Scheduled Commodity Business Days or Disrupted Days

#### 1.1 Single Commodity and Reference Dates

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a single Commodity, and

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Commodity is a Scheduled Commodity Business Day that is not a Disrupted Day for such Commodity, then the Reference Date for such Commodity shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of such Commodity is not a Scheduled Commodity Business Day, then the Reference Date in respect of such Commodity shall, subject to paragraph (c) below, be the first succeeding day that is a Scheduled Commodity Business Day for such Commodity;
- (c) if the Calculation Agent determines that the Reference Date in respect of such Commodity is a Disrupted Day and, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("**Disruption Fallback**") specified is:
  - (i) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), taking into consideration the latest available quotation for the relevant Commodity Reference Price, the relevant market conditions at the time of the relevant determination and any other information that it deems relevant on such Reference Date;
  - (ii) "Delayed Publication or Announcement", then the Underlying Price for that Reference Date will be determined by the Calculation Agent, acting in its reasonable discretion, on the basis of the Specified Price (or, if there is no Specified Price for a Commodity Reference Price, such Commodity Reference Price) in respect of such Reference Date that is published or announced by the Price Source retrospectively on the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines, in its reasonable discretion, is not a Disrupted Day, unless the Calculation Agent determines, acting in its reasonable discretion, that either (A) each of the consecutive Scheduled Commodity Business Days in a number equal to the Maximum Days of Disruption immediately following such Reference Date is a Disrupted Day or (B) the Underlying Price continues to be unavailable for such number of Scheduled Commodity Business Days equal to the Maximum Days of Disruption immediately following such Reference Date. In that case, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is specified, the Underlying Price will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

- (iii) "Fallback Reference Dealers", then the Underlying Price will be determined in accordance with the Commodity Reference Price, "Commodity Reference Dealers":
- (iv) "Fallback Reference Price", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price based on the price for that Reference Date of the first alternate Commodity Reference Price, if any, specified in Part B (general terms) of the applicable Issue Specific Terms. If such alternate Commodity Reference Price is not available on that Reference Date, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is specified, the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*; or
- (v) "Postponement", then the Reference Date for such Commodity shall be postponed to the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines is not a Disrupted Day, unless the Calculation Agent determines that each of the consecutive Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption immediately following such Reference Date is a Disrupted Day. In that case:
  - (A) the Scheduled Commodity Business Day which falls such number of Scheduled Commodity Business Days equal to the Maximum Days of Disruption immediately following the Reference Date shall be deemed to be the Reference Date for such Commodity, notwithstanding the fact that such day is a Disrupted Day; and
  - (B) the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*:

#### provided that:

- (vi) if the consequence of "**No Adjustment**" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for the relevant Commodity shall be the Scheduled Reference Date, notwithstanding that such Scheduled Reference Date is not a Scheduled Commodity Business Day or is a Disrupted Day, and the Underlying Price shall be determined in accordance with the 'Calculation Agent Determination' provisions above on each such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall, in respect of such Reference Date, be deemed to be the Underlying Price in respect of the relevant Reference Date;
- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms;

- (e) if Part B (general terms) of the applicable Issue Specific Terms provide that both "Delayed Publication or Announcement" and "Postponement" shall be applicable Disruption Fallbacks for a Reference Date, then, unless otherwise specified in Part B (general terms) of the applicable Issue Specific Terms, both such Disruption Fallbacks are to operate concurrently with the other and each shall be subject to the applicable Maximum Days of Disruption provisions, and the price determined by Postponement will be the Underlying Price only if Delayed Publication or Announcement does not yield an Underlying Price at any time within the period of Scheduled Commodity Business Days equal to the Maximum Days of Disruption following the relevant Reference Date; and
- if the Calculation Agent determines that any Reference Date is a Disrupted Day in respect of such Commodity and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "Postponement" (with five (5) Scheduled Commodity Business Days as the Maximum Days of Disruption) will be deemed to have been specified.

# 1.2 Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Commodity Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Commodity Business Day and Individual Disrupted Day) " applies, then:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Basket Commodity is a Scheduled Commodity Business Day that is not a Disrupted Day for such Basket Commodity, then the Reference Date for such Basket Commodity shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Basket Commodity is not a Scheduled Commodity Business Day for such Basket Commodity, then the Reference Date in respect of such Basket Commodity shall, subject to paragraph (c) below, be the first succeeding day that is a Scheduled Commodity Business Day for such Basket Commodity;
- (c) if the Calculation Agent determines, acting in its reasonable discretion, that the Reference Date for any Basket Commodity is a Disrupted Day for such Basket Commodity, then, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("**Disruption Fallback**") for such Basket Commodity specified is:
  - (i) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), taking into consideration the latest available quotation for the relevant Commodity Reference Price, the relevant market conditions at the time of determination and any other information that it deems relevant on such Reference Date;

- (ii) "Delayed Publication or Announcement", then the Underlying Price for such Reference Date will be determined on the basis of the Specified Price (or, if there is no Specified Price for a Commodity Reference Price, such Commodity Reference Price) in respect of such Reference Date that is published or announced by the Price Source retrospectively on the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Commodity, unless the Calculation Agent determines, acting in its reasonable discretion, that either (A) each of the consecutive Scheduled Commodity Business Days of a number equal to the Maximum Days of Disruption immediately following such Reference Date is a Disrupted Day or (B) the Underlying Price continues to be unavailable for a number of consecutive Scheduled Commodity Business Days equal to the Maximum Days of Disruption immediately following such Reference Date. In that case, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is specified, the Underlying Price will be determined in accordance with the 'Calculation Agent Determination' provisions above, mutatis mutandis;
- (iii) "Fallback Reference Dealers", then the Underlying Price will be determined in accordance with the Commodity Reference Price, "Commodity Reference Dealers";
- (iv) "Fallback Reference Price", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price based on the price for that Reference Date of the first alternate Commodity Reference Price, if any, specified in Part B (general terms) of the applicable Issue Specific Terms that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Commodity. If such alternate Commodity Reference Price is not available on that Reference Date, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is so specified, the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*; or
- (v) "Postponement", then the Reference Date for such Basket Commodity shall be postponed to the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Commodity, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption in respect of such Basket Commodity immediately following such Reference Date is a Disrupted Day for such Basket Commodity. In that case:
  - (A) the Scheduled Commodity Business Day which falls such number of Scheduled Commodity Business Days equal to the Maximum Days of Disruption immediately following the Reference Date shall be deemed to

- be the Reference Date for such Basket Commodity, notwithstanding the fact that such day may, or may not, be a Disrupted Day for such Basket Commodity; and
- (B) the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

# provided that,

- (vi) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Commodity shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Commodity Business Day or is a Disrupted Day for any Basket Commodity, and the Underlying Price shall be determined in accordance with the 'Calculation Agent Determination' provisions above on such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date;
- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms;
- (e) if Part B (general terms) of the applicable Issue Specific Terms provide that both "Delayed Publication or Announcement" and "Postponement" shall be applicable Disruption Fallbacks for a Reference Date, then, unless otherwise specified in Part B (general terms) of the applicable Issue Specific Terms, both such Disruption Fallbacks are to operate concurrently with the other and each shall be subject to the applicable Maximum Days of Disruption, and the price determined by Postponement will be the Underlying Price only if Delayed Publication or Announcement does not yield an Underlying Price within at any time the period of Scheduled Commodity Business Days equal to the Maximum Days of Disruption following the relevant Reference Date; and
- (f) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Disrupted Day in respect of any Basket Commodity and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "Postponement" (with five (5) Scheduled Commodity Business Days as the Maximum Days of Disruption) will be deemed to have been specified.
- 1.3 Commodity Basket and Reference Dates Common Scheduled Commodity Business Day but Individual Disrupted Day

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Commodity Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Commodity Business Day but Individual Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is a Common Scheduled Commodity Business Day that is not a Disrupted Day for each Basket Commodity, then the Reference Date for each Basket Commodity shall be such Scheduled Reference Date;
- (b) if any Scheduled Reference Date is not a Common Scheduled Commodity Business Day, then the Reference Date for each Basket Commodity shall, subject to paragraph (c) below), be the first succeeding Common Scheduled Commodity Business Day following such Scheduled Reference Date:
- (c) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Common Scheduled Commodity Business Day but is a Disrupted Day for one or more Basket Commodities, then the following provisions shall apply:
  - (i) if the Calculation Agent determines, acting in its reasonable discretion, that such Common Scheduled Commodity Business Day is not a Disrupted Day for a Basket Commodity, then the Reference Date for each Basket Commodity shall be such Common Scheduled Commodity Business Day;
  - (ii) if the Calculation Agent determines, acting in its reasonable discretion, that such Common Scheduled Commodity Business Day is a Disrupted Day for a Basket Commodity (any such Basket Commodities being "Affected Basket Commodities", and each such Basket Commodity being an "Affected Basket Commodity"), then, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("Disruption Fallback") for such Affected Basket Commodity specified is:
    - (A) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), for such Affected Basket Commodity taking into consideration the latest available quotation for the relevant Commodity Reference Price, the relevant market conditions at the time of determination and any other information that it deems relevant on such Reference Date;
    - (B) "Delayed Publication or Announcement", then the Underlying Price for a Reference Date for such Affected Basket Commodity will be determined on the basis of the Specified Price (or, if there is no Specified Price for a Commodity Reference Price, such Commodity Reference Price) in respect of such Reference Date that is published or announced by the Price Source retrospectively on the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Affected Basket Commodity, unless the Calculation Agent determines, acting in its reasonable discretion, that either (A) each of the consecutive Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption in respect of such Affected Basket Commodity immediately following such Reference Date is a Disrupted Day or (B) the

Underlying Price continues to be unavailable for a period of Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption following the relevant Referenced Date. In that case, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is specified, the Underlying Price will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

- (C) "Fallback Reference Dealers", then the Underlying Price will be determined in accordance with the Commodity Reference Price, "Commodity Reference Dealers";
- (D) "Fallback Reference Price", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price for such Affected Basket Commodity based on the price for that Reference Date of the first alternate Commodity Reference Price, if any, specified in Part B (general terms) of the applicable Issue Specific Terms. If such alternate Commodity Reference Price is not available on that Reference Date, the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback so is specified, the price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*; or
- (E) "Postponement", then the Reference Date for such Affected Basket Commodity shall be postponed to the first succeeding Scheduled Commodity Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Affected Basket Commodity, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption in respect of such Affected Basket Commodity immediately following the Reference Date is a Disrupted Day for such Affected Basket Commodity. In that case:
  - (1) the Scheduled Commodity Business Day which falls such number of Scheduled Commodity Business Days after the Reference Date equal to the Maximum Days of Disruption shall be deemed to be the Reference Date for such Affected Basket Commodity, notwithstanding the fact that such day is a Disrupted Day for such Affected Basket Commodity; and
  - (2) the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

#### provided that:

(F) if the consequence of "**No Adjustment**" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for

each Basket Commodity shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Common Scheduled Commodity Business Day or is a Disrupted Day for such Basket Commodity, and the Underlying Price shall be determined in accordance with the 'Calculation Agent Determination' provisions above on such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date;

- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms;
- (e) if Part B (general terms) of the applicable Issue Specific Terms provide that both "Delayed Publication or Announcement" and "Postponement" shall be applicable Disruption Fallbacks for a Scheduled Reference Date, then, unless otherwise specified in Part B (general terms) of the applicable Issue Specific Terms, both such Disruption Fallbacks are to operate concurrently with the other and each shall be subject to the applicable Maximum Days of Disruption, and the price determined by Postponement will be the Underlying Price only if Delayed Publication or Announcement does not yield an Underlying Price at any time within the period of Common Scheduled Commodity Business Days equal to the Maximum Days of Disruption following the relevant Scheduled Reference Date; and
- (f) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Disrupted Day in respect of any Basket Commodity and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "Postponement" (with five (5) Scheduled Commodity Business Days as the Maximum Days of Disruption) will be deemed to have been specified.

# 1.4 Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day and Common Disrupted Day

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Commodity Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Commodity Business Day and Common Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is a Common Scheduled Commodity Business Day that is not a Disrupted Day for each Basket Commodity, then the Reference Date for each Basket Commodity shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is not a Common Scheduled Commodity Business Day or is a Disrupted Day for one or more Basket Commodities, then the Reference Date for each

Basket Commodity shall be the first succeeding Common Scheduled Commodity Business Day following such Scheduled Reference Date which the Calculation Agent determines is not a Disrupted Day for each Basket Commodity, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Common Scheduled Commodity Business Days equal in number to the Maximum Days of Disruption immediately following such Scheduled Reference Date is a Disrupted Day for one or more Basket Commodities. In that case:

- (i) the Common Scheduled Commodity Business Day which falls such number of Common Scheduled Commodity Business Days equal to the Maximum Days of Disruption following the Scheduled Reference Date shall be deemed to be the Reference Date for each Basket Commodity, notwithstanding the fact that such day may or may not be a Disrupted Day for one or more Basket Commodities;
- (ii) for each Basket Commodity, the Underlying Price shall be determined, in its reasonable discretion, by the Calculation Agent on that Reference Date, taking into consideration the latest available quotation for each of the relevant Commodity Reference Prices, the relevant market conditions at the time of determination and any other information that the Calculation Agent deems relevant on such Reference Date;

#### provided that:

(iii) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Commodity shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Commodity Business Day or is a Disrupted Day for such Basket Commodity, and the Underlying Price for the relevant Reference Date shall be determined by the Calculation Agent, in its reasonable discretion, taking into consideration the latest available quotation for the relevant Commodity Reference Price, the relevant market conditions at the time of determination and any other information that it deems appropriate.

#### 2. Successor Entity calculates and reports a Commodity Reference Price

If in respect of any relevant Reference Date or any Calculation Date, either a Commodity Reference Price is (i) not announced or published by the Price Source but is calculated and announced by a successor entity acceptable to the Calculation Agent or (ii) replaced by a successor commodity price calculated using, as determined, in its reasonable discretion, by the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Commodity Reference Price, then in each case, such price as so calculated will be deemed to be the Commodity Reference Price.

If the Calculation Agent determines, in its reasonable discretion, that either (A) the relevant successor entity is no acceptable as aforesaid, or (B) that the new Commodity Reference Price is not suitable or would not otherwise produce a commercially reasonable result, it may direct the Issuer to redeem the Commodity Linked Securities under Commodity Linked Provision 9 (*Early Redemption*) below.

# 3. Corrections to published Commodity Reference Prices

If a Commodity Reference Price published or announced on a given day and used or to be used by the Calculation Agent to determine any Underlying Price or other amount on any Reference Date is subsequently corrected and the correction is published or announced by the Trading Facility or any other person responsible for such publication or announcement by the second Business Day prior to the date on which any payment is due in respect of the relevant publication or announcement, such corrected price shall be the Commodity Reference Price, and the Calculation Agent, to the extent it deems necessary, may make appropriate adjustments to any of the terms of the Commodity Linked Securities to account for such correction, provided that, if a Correction Cut-off Date has been specified as applicable in Part B (general terms) of the applicable Issue Specific Terms, corrections published after such Correction Cut-off Date will be disregarded by the Calculation Agent for the purposes of determining or calculating any relevant amount, and/or whether any event specified in Part B (general terms) of the applicable Issue Specific Terms has occurred.

# 4. Fallback Valuation Date for a Single Commodity or Commodity Basket

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Commodity or a Commodity Basket, and notwithstanding any other terms of these Commodity Linked Provisions, if a Fallback Valuation Date is specified in Part B (general terms) of the applicable Issue Specific Terms to be applicable to any Reference Date for a Commodity (including a Basket Commodity), and if, following adjustment of such Reference Date pursuant to Commodity Linked Provision 1 (Consequences of Non-Scheduled Commodity Business Days or Disrupted Days) above (for the purposes of this Commodity Linked Provision 4, an "Affected Commodity"), the Reference Date would otherwise fall after the specified Fallback Valuation Date in respect of such Affected Commodity, then the Fallback Valuation Date shall be deemed to be such Reference Date for such Affected Commodity.

If such Fallback Valuation Date is not a Scheduled Commodity Business Day or a Common Scheduled Commodity Business Day, as applicable, or is a Disrupted Day in respect of such Affected Commodity, the Underlying Price of such Affected Commodity shall be determined in accordance with the 'Calculation Agent Determination' provisions above on such Fallback Valuation Date, and the price so determined by the Calculation Agent pursuant to this Commodity Linked Provision 4 shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

# 5. Consequences of Disruption Days and Disruption Events in respect of a Commodity Index

Where the Commodity Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Commodity Index, and,

(a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of such Commodity Index is a Scheduled Commodity Business Day that is not a Disrupted Day for such Commodity Index, then the Reference Date for such Commodity Index shall be such Scheduled Reference Date;

- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of such Commodity Index is not a Scheduled Commodity Business Day, then, subject to paragraph (c) below, the Reference Date in respect of such Commodity Index shall be the first succeeding day that is a Scheduled Commodity Business Day for such Commodity Index;
- (c) if the Calculation Agent determines, acting in its reasonable discretion, that the Reference Date in respect of such Commodity Index is a Disrupted Day, then the Closing Level of such Commodity Index shall not be determined by reference to the Relevant Screen Page but shall be determined by the Calculation Agent as follows:
  - (i) if the Calculation Agent determines, acting in its reasonable discretion, that such Reference Date is not a Disrupted Day in respect of a Commodity Contract included in such Commodity Index (an "Unaffected Commodity Contract"), the Closing Level of such Commodity Index will be based on the settlement price of such Unaffected Commodity Contract as published by the relevant Trading Facility on such Reference Date;
  - if the Calculation Agent determines, acting in its reasonable discretion, that such (ii) Reference Date is a Disrupted Day in respect of a Commodity Contract included in such Commodity Index (an "Affected Commodity Contract"), the Closing Level of such Commodity Index will be based on the settlement price of such Affected Commodity Contract published by the relevant Trading Facility on the Relevant Screen Page on the first succeeding Scheduled Commodity Trading Day which the Calculation Agent determines is not a Disrupted Day for such Affected Commodity Contract, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Scheduled Commodity Trading Days relating to such Affected Commodity Contract equal in number to the Maximum Days of Disruption immediately following such Reference Date is a Disrupted Day for such Affected Commodity Contract, in which case the price of such Affected Commodity Contract to be used in calculating the Closing Level of such Commodity Index for such Reference Date shall be determined by the Calculation Agent, acting in its reasonable discretion and taking into account any relevant market conditions at the time of such determination, on the Scheduled Commodity Trading Day relating to such Affected Commodity Contract which falls such number of Scheduled Commodity Trading Days equal to the Maximum Days of Disruption after the relevant Reference Date, notwithstanding that such day is a Disrupted Day for such Affected Commodity Contract (each date on which the settlement price for an Affected Commodity Contract is determined, a "Commodity Contract Determination Date");
  - (iii) if the offices of the Calculation Agent are not open for business on any relevant Commodity Contract Determination Date, then any relevant calculation will be made, in its reasonable discretion, by Goldman, Sachs & Co. or another affiliate of the Calculation Agent; and

(iv) the Calculation Agent shall, in its reasonable discretion, determine the Closing Level of the Commodity Index by reference to the settlement price or other prices of each Commodity Contract included in such Commodity Index determined pursuant to sub-paragraphs (i), (ii) and (iii) above using the then current method for calculating the Commodity Index on the Latest Determination Date.

## 6. Adjustments for a Commodity Index

## 6.1 Successor Commodity Index Sponsor or Successor Commodity Index

If a Commodity Index is (i) not calculated and announced by the Commodity Index Sponsor but is calculated and announced by a successor commodity index sponsor acceptable to the Calculation Agent (the "Successor Commodity Index Sponsor"), or (ii) replaced by a successor commodity index using, in the determination of the Calculation Agent, the same or a substantially similar specification or formula and method for the calculation of such Commodity Index (the "Successor Commodity Index"), then in the case of (i), the Successor Commodity Index Sponsor will be deemed to be the Commodity Index Sponsor for such Commodity Index; and in the case of (ii), the Successor Commodity Index will be deemed to be the Commodity Index.

If any of the events set out in (i) or (ii) above has occurred, but the Calculation Agent has not identified, acting in its reasonable discretion, a Successor Commodity Index Sponsor or Successor Commodity Index, as applicable, then the occurrence of any such event shall constitute either a Commodity Index Modification or Commodity Index Cancellation, as applicable, and the provisions of Commodity Linked Provision 6.2 (Occurrence of a Commodity Index Adjustment Event) shall apply accordingly, mutatis mutandis.

## 6.2 Occurrence of a Commodity Index Adjustment Event

If, in respect of a Commodity Index, the Calculation Agent determines, acting in its reasonable discretion, that:

on or prior to any Reference Date or other relevant date, (i) the relevant Commodity (a) Index Sponsor, makes in the determination of the Calculation Agent, acting in its reasonable discretion, a material change in the weighting or composition of the Commodity Index or in the formula for, or the method of, calculating or determining the composition of such Commodity Index, as the case may be, or in any other way materially modifies such Commodity Index (other than a change or modification prescribed in that formula or method relating to the weighting or composition of such Commodity Index, the weighting of the components of such Commodity Index and/or other routine events or modifications as determined, in its reasonable discretion, by the Calculation Agent) (a "Commodity Index Modification"), or (ii) the relevant Commodity Index Sponsor permanently cancels or ceases to calculate the relevant Commodity Index and no Successor Commodity Index exists as at the date of such cancellation or cessation (a "Commodity Index Cancellation"), or (iii) an Administrator/Benchmark Event Date has occurred in respect of such Commodity Index, or

290

(b) on any Reference Date or other relevant date, (i) in the determination of the Calculation Agent, acting in its reasonable discretion, the Closing Level of the relevant Commodity Index contains a manifest error, or (ii) in the absence of a Disruption Event, the Commodity Index Sponsor fails to calculate and announce the Closing Level of such Commodity Index and a Successor Commodity Index is not calculated and announced (a "Commodity Index Failure" and, together with a Commodity Index Modification, a Commodity Index Cancellation and an Administrator/Benchmark Event, each a "Commodity Index Adjustment Event"),

then the Calculation Agent shall, in its reasonable discretion, determine if such Commodity Index Adjustment Event has a material effect on the Commodity Linked Securities and, if so, it may decide that the consequence set out in either paragraph (a) or paragraph (b) below shall, subject to the terms thereof, apply in respect of the Commodity Linked Securities:

- (i) the Calculation Agent may calculate the Closing Level using, in lieu of a published level for that Commodity Index, the level for such Commodity Index as at that Reference Date or other relevant date, as the case may be, as determined, in its reasonable discretion, by the Calculation Agent in accordance with the formula for, and method of, calculating the level of such Commodity Index last in effect prior to the relevant Commodity Index Adjustment Event, utilising any adjustment to such formula for or the method of calculating the Closing Level of such Commodity Index as it determines, in its reasonable discretion, to be commercially reasonable, or
- (ii) the Calculation Agent may determine the appropriate adjustment, if any, to be made to any one or more of the terms of the Commodity Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Commodity Linked Securities, as the Calculation Agent determines appropriate to account for such Commodity Index Adjustment Event, and shall determine the effective date of that adjustment

provided that if the Calculation Agent determines in its reasonable discretion that no adjustment it could make under this paragraph Commodity Linked Provision 6.2 would produce a commercially reasonable result, the Calculation Agent may direct the Issuer to redeem the Commodity Linked Securities under Commodity Linked Provision 9 (*Early Redemption*) below.

## 7. Corrections to published Closing Level in respect of a Commodity Index

If a Closing Level in respect of a Commodity Index published on a Reference Date is subsequently corrected and the correction is published by the Commodity Index Sponsor or the Successor Commodity Index Sponsor, as the case may be, not later than 12.00 noon (New York City time) on the Scheduled Commodity Business Day immediately following such Reference Date then the corrected Closing Level for such Reference Date shall be deemed to be the Closing Level for such Reference Date and the Calculation Agent shall use the corrected Closing Level in accordance with the above provisions, provided that the foregoing provisions shall not apply to any correction to the Closing Level published on or after the Scheduled Commodity Business Day immediately preceding the Settlement Date.

## 8. Adjustments, Additional Disruption Events and Change in Law

## 8.1 Adjustments following Additional Disruption Events

If the Calculation Agent determines, in its reasonable discretion, that an Additional Disruption Event specified as applicable in Part B (general terms) of the applicable Issue Specific Terms has occurred and it has material effect on the Commodity Linked Securities, it may, in its reasonable discretion, determine the appropriate adjustment, if any, to be made to any one or more of the terms of the Commodity Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Commodity Linked Securities, as the Calculation Agent determines, in its reasonable discretion, appropriate to account for the relevant Additional Disruption Event, and determine the effective date of that adjustment. If the Calculation Agent determines, in its reasonable discretion, that no adjustment it could make under this Commodity Linked Provision 8.1 would produce a commercially reasonable result, it may direct the Issuer to redeem the Commodity Linked Securities under Commodity Linked Provision 9 (*Early Redemption*) below.

## 8.2 Change of applicable law

Upon the Calculation Agent becoming aware of the occurrence of a Change in Law, the Calculation Agent may, in its reasonable discretion: (i) make such amendments or adjustments to the terms of the Commodity Linked Securities as may be required such that the performance by the Issuer, the Guarantor, the Paying Agent, the Registrar (if applicable) or the Calculation Agent of any of their respective roles under the Commodity Linked Securities shall no longer be unlawful or impracticable under applicable law, provided that (a) such amendments or adjustments are effected in such a manner as to preserve insofar as possible and practicable the commercial terms of the Commodity Linked Securities prior to such amendments or adjustments, (b) any proposed substitution of the Issuer may only be effected in accordance with Section 15 (Substitution of Issuer) of the General Conditions and (c) if the Calculation Agent determines, in its reasonable discretion, that no adjustment it could make under this paragraph Commodity Linked Provision 8.2 would produce a commercially reasonable result, it may direct the Issuer to redeem the Commodity Linked Securities under Commodity Linked Provision 9 (Early Redemption) below.

The preceding paragraph shall apply in respect of each Commodity Linked Security which has not been redeemed on or prior to the date of the early redemption notice under Commodity Linked Provision 9 (*Early Redemption*) below (the "**Notice Effective Date**"), and, for the avoidance of doubt, if a Commodity Linked Security has been exercised pursuant to Section 2 (*Exercise*) of the General Conditions on or prior to the Notice Effective Date in respect of such Commodity Linked Security, but such Commodity Linked Security has not yet been redeemed on or prior to such date, then such exercise pursuant to Section 2 (*Exercise*) of the General Conditions shall be deemed to be void and of no effect, and such Commodity Linked Security shall be redeemed in accordance with and pursuant to the preceding paragraph.

## 9. Early Redemption

If following the occurrence of any of the relevant events listed in Commodity Linked Provisions 2 (Successor Entity calculates and reports a Commodity Reference Price), Commodity Linked

Provision 6.2 (Occurrence of Commodity Index Adjustment Event) or Commodity Linked Provision 8 (Adjustments, Additional Disruption Events and Change in Law) above, the Calculation Agent has directed the Issuer to redeem the Commodity Linked Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to Security Holders in accordance with Section 17 (Notices) of the General Conditions designating a termination date (the "Termination Date"). On the Termination Date, the Issuer shall redeem all, but not some only, of the Commodity Linked Securities and it shall pay an amount equal to the Termination Amount to each Security Holder in respect of each Commodity Linked Security held by it. Payment of the Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 (Notices) of the General Conditions.

#### 10. General Definitions

The following terms and expressions shall have the following meanings in relation to Commodity Linked Securities to which these Commodity Linked Provisions apply:

"Additional Disruption Events" means a Hedging Disruption or an Increased Cost of Hedging (each an "Additional Disruption Event").

"Administrator/Benchmark Event" means, in respect of a Commodity Reference Price or a Commodity Index, the occurrence or existence, as determined by the Calculation Agent, of any of the following events in respect of such Commodity Reference Price or Commodity Index:

- (a) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of a Commodity Reference Price or a Commodity Index or the administrator or sponsor of a Commodity Reference Price or a Commodity Index has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, or any prohibition by a relevant competent authority or other relevant official body, in each case with the effect that the Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity is not, or will not be, permitted under any applicable law or regulation to use the Commodity Reference Price or the Commodity Index to perform its or their respective obligations under the Securities; or
- (b) any material change to the methodology or formula for the Commodity Reference Price or the Commodity Index or any other means of calculating the Commodity Reference Price, as determined by the Calculation Agent ("Material Methodology Change Event").

"Administrator/Benchmark Event Date" means, in respect of a Commodity Reference Price or a Commodity Index, the date determined by the Calculation Agent to be:

(a) in the case of paragraph (a) of the definition of "Administrator/Benchmark Event", the date from which the Commodity Reference Price or the Commodity Index may no longer be used under any applicable law or regulation by Issuer and/or the Calculation Agent (as applicable) and/or any other relevant entity to perform its or their respective obligations under the Securities; or (b) in the case of paragraph (b) of the definition of "Administrator/Benchmark Event", the date on which the change to the methodology or formula for the Commodity Reference Price or the Commodity Index becomes effective,

or, in each case, if such date occurs before the Initial Valuation Date, the Initial Valuation Date.

"Affected Commodity" has the meaning given thereto in Commodity Linked Provision 6(c)(ii) (Fallback Valuation Date for a Single Commodity or Commodity Basket).

"Affected Basket Commodity" and "Affected Basket Commodities" have the meaning given thereto in Commodity Linked Provision 1.3(b)(ii) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day).

"Affected Commodity Contract" has the meaning given thereto in Commodity Linked Provision 5(c)(ii) (Consequences of Disruption Days and Disruption Events in respect of a Commodity Index).

"Basket Commodity" means each Commodity which is a component of a Commodity Basket, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Agent Determination" has the meaning given thereto in Commodity Linked Provision 1.1(c)(i) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(i) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) and Commodity Linked Provision 1.3(c)(ii)(A) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day).

"Calculation Date" means the date as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Hours" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Change in Law" means any event or action or announcement of the intention to take any action, on or after the Issue Date, that in the reasonable determination of the Calculation Agent adversely affects the ability of Goldman Sachs to establish or maintain Hedging Positions with respect to the Commodity Linked Securities, that are reasonably necessary to the management of risk arising from the Commodity Linked Securities, including, but not limited to, any applicable law, regulation, ruling, rule, procedure or order (including without limitation any tax law and any Sanction Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or any related Hedging Positions) ("Applicable Laws") or the amendment, reinterpretation or promulgation of an interpretation of any such Applicable Laws by any regulatory, selfregulatory or legislative body, judicial authority, tax authority with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or revenant Clearing System) ("Regulatory Authority") (including, without limitation, as implemented by any United States, European or Asian Regulatory Authority (including the Commodity Futures Trading Commission and the Relevant European Authorities) or exchange, trading facility, central counterparty or other clearing organisation) that results in (a) the elimination, limitation, withdrawal or unavailability for any reason of any hedge exemptions from applicable position limits previously granted to Goldman Sachs by any such Regulatory Authority or any such exchange, trading facility, central counterparty or other clearing organisation, or any hedge exemptions otherwise available to Goldman Sachs under Applicable Laws; or (b) a restriction or revision of existing position limits applicable to Goldman Sachs in respect of, or the imposition of position limits to, any Hedging Positions established by Goldman Sachs in connection with the Commodity Linked Securities to the extent that such application prevents or adversely affects Goldman Sachs from establishing or maintaining Hedging Positions that are reasonably necessary in order for it to manage the risk arising from or in connection with the Commodity Linked Securities, or such other Applicable Laws of any jurisdiction which have an analogous affect to any events specified in (a) and (b) above; or (c) Goldman Sachs incurring a materially increased cost in performing its obligations under the Commodity Linked Securities or in acquiring, establishing, re-establishing, substituting, unwinding, maintaining or disposing of any Hedge Positions with respect to the Commodity Linked Securities (including, without limitation, due to any mandatory margining or clearing requirement, any increase in capital charges, taxes or level of capital that is required to be set aside in respect of the Commodity Linked Securities or such Hedge Positions).

"Closing Level" means, in respect of a Calculation Date, the official closing level of the Commodity Index as announced and published on the Relevant Screen Page on such Calculation Date, as determined by the Calculation Agent, or, if a Disruption Event occurs or is continued in respect of a Commodity Index and a relevant date, as calculated by the Calculation Agent in accordance with Commodity Linked Provision 5 (Consequences of Disruption Days and Disruption Events in respect of a Commodity Index).

"Commodity" means, in respect of an issue of Commodity Linked Securities relating to a single Commodity, the Commodity, and in respect of an issue of Commodity Linked Securities relating to a Commodity Basket, each Basket Commodity, in each case specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"Commodity Basket" means a basket comprising Commodities in the relative proportions or numbers of Commodities, as specified in Part B (general terms) of the applicable Issue Specific Terms.

#### "Commodity Contract" means:

- (a) in respect of a Commodity and a Commodity Reference Price, the contract for future delivery of a contract size in respect of the relevant Delivery Date relating to the Commodity referred to in that Commodity Reference Price; and
- (b) in respect of a Commodity Index, each of the contracts that is traded on a Trading Facility and that provides for future delivery of, or provides for cash settlement based on the price of, a deliverable commodity included in such Commodity Index.

"Commodity Contract Determination Date" means, in respect of an Affected Commodity Contract included in a Commodity Index, the day on which the settlement price of such Affected Commodity Contract is determined in accordance with Commodity Linked Provision 5(c)(ii) (Consequences of Disruption Days and Disruption Events in respect of a Commodity Index).

"Commodity Index" means an index that includes Commodity Contracts in respect of Commodities specified in Part B (general terms) of the applicable Issue Specific Terms.

"Commodity Index Adjustment Event" means each of Commodity Index Cancellation, Commodity Index Failure and Commodity Index Modification.

"Commodity Index Cancellation" has the meaning given thereto in Commodity Linked Provision 6.2(a) (Occurrence of a Commodity Index Adjustment Event).

"Commodity Index Failure" has the meaning given thereto in Commodity Linked Provision 6.2(b) (Occurrence of a Commodity Index Adjustment Event).

"Commodity Index Modification" has the meaning given thereto in Commodity Linked Provision 6.2(a) (Occurrence of a Commodity Index Adjustment Event).

"Commodity Index Sponsor" means, in respect of a Commodity Index, the entity specified in Part B (general terms) of the applicable Issue Specific Terms, that the Calculation Agent determines, in its reasonable discretion, is (a) responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Commodity Index, and (b) announces (directly or through an agent) the level of such Commodity Index on a regular basis, or its successor as determined, in its reasonable discretion, by the Calculation Agent.

"Commodity Linked Securities" means Securities specified as "Commodity Linked Securities" in Part B (general terms) of the applicable Issue Specific Terms.

"Commodity — Reference Dealers" means that the price for a Reference Date will be determined on the basis of quotations provided by Reference Dealers on that Reference Date of that day's Specified Price (or, if there is no Specified Price for a Commodity Reference Price, such Commodity Reference Price) for a Unit of the relevant Commodity for delivery on the Delivery Date (or, if there is no Delivery Date for a Commodity Reference Price, for delivery on such date that forms the basis on which such Commodity Reference Price is quoted). If four quotations are provided as requested, the price for that Reference Date will be the arithmetic mean of the Specified Prices (or, if there is no Specified Price for a Commodity Reference Price, of such Commodity Reference Prices for the relevant date and time) for that Commodity provided by each Reference Dealer, without regard to the Specified Prices (or, as the case may be, Commodity Reference Prices for the relevant date and time) having the highest and lowest values. If exactly three quotations are provided as requested, the price for that Reference Date will be the Specified Price (or, as the case may be, Commodity Reference Price for the relevant date and time) provided by the relevant Reference Dealer that remains after disregarding the Specified Prices (or, as the case may be, Commodity Reference Prices for the relevant date and time) having the highest and lowest values. For this purpose, if more than one quotation has the same highest or lowest value, then the Specified Price (or, as the case may be, Commodity Reference Price for the relevant date and time) of one of such quotations shall be disregarded. If fewer than three quotations are provided, then the next Disruption Fallback specified in Part B (general terms) of the applicable Issue Specific Terms will apply, or, if no such Disruption Fallback is specified or is deemed to be specified, the price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above.

"Commodity Reference Price" means, in respect of any Commodity, the reference price of such Commodity as specified in, or determined in the manner prescribed by, Part B (general terms) of the applicable Issue Specific Terms.

"Common Scheduled Commodity Business Day" means, in respect of a Commodity Basket, each day which is a Scheduled Commodity Business Day for all Basket Commodities in that Commodity Basket.

"Correction Cut-off Date" means, in respect of any Commodity, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms, or, if "Correction Cut-off Date" is specified in the Issue Specific Terms to be applicable to any date on which the price of such Commodity is required to be determined, but no date is specified for the Correction Cut-off Date, then the Correction Cut-off Date for such Commodity and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Commodity on such day.

"Delayed Publication or Announcement" has the meaning given thereto in Commodity Linked Provision 1.1(c)(ii) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(ii) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) and Commodity Linked Provision 1.3(c)(ii)(B) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day), as applicable.

"**Delivery Date**" means, in respect of a Commodity Reference Price, such delivery date as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Disappearance of Commodity Reference Price" means, in respect of a Commodity,

- (a) the permanent discontinuation of trading in the relevant Commodity Contract on the relevant Trading Facility;
- (b) the disappearance of, or of trading in, such Commodity; or
- (c) the disappearance or permanent discontinuation or unavailability of the Commodity Reference Price, notwithstanding the availability of the Price Source or the status of trading in the relevant Commodity Contract or the relevant Commodity.

#### "Disrupted Day" means, in respect of:

- (a) a Commodity or a Commodity Basket, any Scheduled Commodity Business Day on which a Disruption Event has occurred; and
- (b) a Commodity Index, a day on which a Disruption Event is occurring with respect to a Commodity Contract included in such Commodity Index.

#### "Disruption Event" means:

- (a) in respect of a Commodity, the occurrence on any day of any one or more of the following, as determined by the Calculation Agent:
  - (i) Disappearance of Commodity Reference Price;
  - (ii) Material Change in Content;

- (iii) Material Change in Formula;
- (iv) Price Source Disruption;
- (v) Tax Disruption; or
- (vi) Trading Disruption; and
- (b) in respect of a Commodity Index, the occurrence on any day of any one or more of the following, as determined by the Calculation Agent:
  - (i) the settlement price for any Commodity Contract included in such Commodity Index is a "limit price" which means that the settlement price for such Commodity Contract for a day has increased or decreased from the previous day's settlement price by the maximum amount permitted under the rules of the relevant Trading Facility;
  - (ii) trading in any Commodity Contract included in such Commodity Index is suspended or interrupted subsequent to the opening of trading and trading in such Commodity Contract does not recommence at least ten (10) minutes prior to the regular scheduled close of trading in such Commodity Contract, or in the event trading does recommence at least ten (10) minutes prior to the regular scheduled close of trading on the relevant Trading Facility, trading does not continue on an uninterrupted basis until the regular scheduled close of trading in such Commodity Contract; or
  - (iii) failure by the relevant Trading Facility to announce or publish the settlement price for any Commodity Contract included in such Commodity Index.

"Disruption Fallback" has the meaning given thereto in Commodity Linked Provision 1.1(c) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) and Commodity Linked Provision 1.3(c) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day), as applicable.

"Fallback Valuation Date" means, in respect of a Commodity or a Commodity Basket and any relevant date, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Fallback Reference Dealers" has the meaning given thereto in Commodity Linked Provision 1.1(c)(iii) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(iii) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) and Commodity Linked Provision 1.3(c)(ii)(C) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day), as applicable.

"Fallback Reference Price" has the meaning given thereto in Commodity Linked Provision 1.1(c)(iv) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(iv) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) and Commodity Linked Provision 1.3(c)(ii)(D) (Commodity Basket

and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day), as applicable.

"Hedging Positions" means, for the purposes of the "Change in Law" definition, any position, including, without limitation, any purchase, sale, entry into or maintenance of one or more (i) positions or contracts in futures, options, swaps or other derivatives or foreign exchange, securities or (ii) other instruments or arrangements (howsoever described) established or maintained by Goldman Sachs in order to hedge, individually or on a portfolio basis, the Commodity Linked Securities.

"Hedge Positions" means any arrangements entered into by the Hedging Entity at any time in order to hedge the payment obligations of the Issuer, on an individual or on a portfolio basis, under the Commodity Linked Securities including, without limitation, any acquisition, purchase, sale, entry into or maintenance of one or more (a) positions or contracts in securities, options, future, foreign exchange or derivatives, (b) stock loan transactions or (c) any other instruments or arrangements (howsoever described).

"Hedging Disruption" means, in respect of any Commodity Linked Securities, that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in good faith, to (a) hold, acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant Commodity Linked Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

"Hedging Entity" means the Calculation Agent or another member of the Goldman Sachs Group.

"Increased Cost of Hedging" means that the Hedging-Entity would incur a materially increased costs (as compared with circumstances existing on the Issue Date), including, without limitation, increased tax (including any potential tax which the Calculation Agent considers may arise), duty, expense or fee (other than brokerage commissions) to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the Hedging-Entity's obligations with respect to the Commodity Linked Securities, or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), provided that any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Issuer shall not be deemed an Increased Cost of Hedging.

"Latest Determination Date" means, in respect of a Reference Date and the Affected Commodity Contracts included in the relevant Commodity Index on that Reference Date, the Commodity Contract Determination Date to fall latest in time.

"Material Change in Content" means, in respect of a Commodity, the occurrence since the Issue Date of a material change in the content, composition or constitution of the Commodity or relevant Commodity Contract.

"Material Change in Formula" means, in respect of a Commodity, the occurrence since the Issue Date of a material change in the formula for or the method of calculating the relevant Commodity Reference Price.

"Maximum Days of Disruption" means in respect of Commodity Linked Securities that relate to:

- (a) a single Commodity, five Scheduled Commodity Business Days; or
- (b) a Commodity Basket and Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Commodity Business Day and Common Disrupted Day)" does not apply, five Scheduled Commodity Business Days; or
- (c) a Commodity Basket and Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Commodity Business Day and Common Disrupted Day)" applies, five Common Scheduled Commodity Business Days; or
- (d) a Commodity Index, five Scheduled Commodity Trading Days,

or, in each case, such other number of Scheduled Commodity Business Days, Scheduled Commodity Trading Days or Common Scheduled Commodity Business Days, as applicable (or other type of days) specified in Part B (general terms) of the applicable Issue Specific Terms.

"Nearby Month", when preceded by a numerical adjective, means, in respect of a Delivery Date and a Reference Date or a Calculation Date, as applicable, the month of expiration of the Commodity Contract identified by that numerical adjective, so that, for example, (i) "First Nearby Month" means the month of expiration of the first Commodity Contract to expire following the Reference Date or Calculation Date, as applicable; (ii) "Second Nearby Month" means the month of expiration of the second Commodity Contract to expire following the Reference Date or Calculation Date, as applicable; and (iii) "Sixth Nearby Month" means the month of expiration of the sixth Commodity Contract to expire following the Reference Date or Calculation Date, as applicable.

"No Adjustment" has the meaning given thereto in Commodity Linked Provision 1.1(c)(vi) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(vi) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day) Commodity Linked Provision 1.3(c)(ii)(F) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day) and Commodity Linked Provision 1.4(b)(iii) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day and Common Disrupted Day), as applicable.

"Postponement" has the meaning given thereto in Commodity Linked Provision 1.1(c)(v) (Single Commodity and Reference Dates), Commodity Linked Provision 1.2(c)(v) (Commodity Basket and Reference Dates – Individual Scheduled Commodity Business Day and Individual Disrupted Day), Commodity Linked Provision 1.3(c)(ii)(E) (Commodity Basket and Reference Dates – Common Scheduled Commodity Business Day but Individual Disrupted Day), as applicable.

"Price Materiality Percentage" means the percentage specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"**Price Source**" means the publication (or such other origin of reference, including a Trading Facility) containing (or reporting) the Specified Price (or prices from which the Specified Price is calculated) as specified in Part B (general terms) of the applicable Issue Specific Terms.

## "Price Source Disruption" means, in respect of a Commodity:

- (a) the failure of the Price Source to announce or publish the Specified Price (or the information necessary for determining the Specified Price) for the relevant Commodity Reference Price (or, if there is no Specified Price for a Commodity Reference Price, the failure of the Price Source to announce or publish such Commodity Reference Price for any relevant day (or the information necessary for determining such Commodity Reference Price for such day));
- (b) the temporary or permanent discontinuance or unavailability of the Price Source;
- (c) if the Commodity Reference Price is "Commodity Reference Dealers", the failure to obtain at least three quotations as requested from the relevant Reference Dealers; or
- (d) if a Price Materiality Percentage is specified in Part B (general terms) of the applicable Issue Specific Terms, the Specified Price for the relevant Commodity Reference Price differs from the Specified Price determined in accordance with the Commodity Reference Price, "Commodity – Reference Dealers", by such Price Materiality Percentage.

"**Reference Date**" means each Scheduled Reference Date, as adjusted in accordance with these Commodity Linked Provisions.

"Reference Dealers" means, if the relevant Commodity Reference Price is "Commodity – Reference Dealers", the four dealers specified in Part B (general terms) of the applicable Issue Specific Terms or, if dealers are not so specified, four leading dealers in the relevant market as determined, in its reasonable discretion, by the Calculation Agent.

"Relevant European Authorities" means, for the purposes of the "Change in Law" definition, the European Commission, the European Parliament, the Council of the European Union, the European Securities and Markets Authority, the European Banking Authority, the European Insurance and Occupational Pensions Authority, the European Central Bank, and any competent authority of a member state of the European Economic Area.

"Relevant Screen Page" means the Bloomberg page or ticker as specified in Part B (general terms) of the applicable Issue Specific Terms or any official successor thereto, as determined by the Calculation Agent in its reasonable discretion.

"Sanction Rules" means any applicable law, rule, regulation, judgment, order, sanction, directive or designation of any governmental, administrative, legislative or judicial authority or power, in each case, relating to any economic or financial sanctions and embargo programmes, including, but not limited to, those enacted, administered and/or enforced, from time to time, by (or by any agency or other authority of) the United States, the United Kingdom, the European Union (or any Member State thereof), Switzerland or the United Nations, and which financial

sanctions and embargo programs may include (without limitation), those restrictions applicable to designated or blocked persons.

#### "Scheduled Commodity Business Day" means

- (a) in respect of a Commodity Linked Security referencing a single Commodity or a Commodity Basket; and:
  - (i) where the Commodity Reference Price for a Commodity is a price announced or published by a Trading Facility, a day that is (or, but for the occurrence of a Disruption Event, would have been) a day on which such Trading Facility is open for trading during its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time; and
  - (ii) where the Commodity Reference Price for a Commodity is not a price announced or published by a Trading Facility, a day that is (or, but for the occurrence of a Disruption Event, would have been published) a day in respect of which the relevant Price Source published a price;
- (b) in respect of a Commodity Linked Security referencing a Commodity Index, any day:
  - (i) that is (or, but for the occurrence of a Disruption Event, would have been) a day on which all the Trading Facilities on which the Commodity Contracts included in the Commodity Index, as applicable, are traded, are open for trading during their regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time; and
  - (ii) the offices of Goldman, Sachs & Co. LLC in New York City are open for business.

"Scheduled Commodity Trading Day" means, in respect of an Affected Commodity Contract, a day on which the relevant Trading Facility on which such Affected Commodity Contract is traded is scheduled to be open for trading for its regular trading session.

"Scheduled Reference Date" means, in respect of the Commodity Linked Security, the Final Valuation Date and/or any other date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Specified Price" means, in respect of a Commodity Reference Price, any of the following prices (which must be a price reported in or by, or capable of being determined from information reported in or by, the relevant Price Source), and, if applicable, as of the time so specified: (A) the high price; (B) the low price; (C) the average of the high price and the low price; (D) the closing price; (E) the opening price; (F) the bid price; (G) the asked price; (H) the average of the bid price and the asked price; (I) the settlement price; (J) the official settlement price; (K) the official price; (L) the morning fixing; (M) the afternoon fixing; (N) the spot price; or (O) any other price specified in Part B (general terms) of the applicable Issue Specific Terms.

"Successor Commodity Index" has the meaning given thereto in Commodity Linked Provision 6.1 (Successor Commodity Index Sponsor or Successor Commodity Index).

"Successor Commodity Index Sponsor" has the meaning given thereto in Commodity Linked Provision 6.1 (Successor Commodity Index Sponsor or Successor Commodity Index).

"Tax Disruption" means, in respect of a Commodity, the imposition of, change in or removal of an excise, severance, sales, use, value-added, transfer, stamp, documentary, recording or similar tax on, or measured by reference to, such Commodity (other than a tax on, or measured by reference to overall gross or net income) by any government or taxation authority after the Issue Date or such other date as may be specified in Part B (general terms) of the applicable Issue Specific Terms, if the direct effect of such imposition, change, or removal is to raise or lower the Underlying Price on the day that would otherwise be a Reference Date or a Calculation Date from what it would have been without that imposition, change, or removal.

"Termination Amount" means an amount in respect of each Commodity Linked Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of that Commodity Linked Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant Commodity Linked Security and, if applicable, accrued interest. The Termination Amount will be rounded in the same manner as the Settlement Amount. When determining the Termination Amount, the Calculation Agent may, *inter alia*, also consider the probability of default of the Issuer based on the credit spreads quoted on the market or on the yields of bonds of the Issuer that are traded with sufficient liquidity at the time of determining the Termination Amount. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

"**Trading Disruption**" means, in respect of a Commodity, the material suspension of, or the material limitation imposed on, trading in the Commodity Contract or the Commodity on the Trading Facility, or in any additional futures contract, options or swap contract, or commodity on any Trading Facility as specified in Part B (general terms) of the applicable Issue Specific Terms or as determined, in its reasonable discretion, by the Calculation Agent. For these purposes:

- (a) a suspension of the trading in the Commodity Contract or the Commodity on any Scheduled Commodity Business Day shall be deemed to be material only if:
  - (i) all trading in the Commodity Contract or the Commodity is suspended for the entire Scheduled Commodity Business Day; or
  - (ii) all trading in the Commodity Contract or the Commodity is suspended subsequent to the opening of trading on the Scheduled Commodity Business Day and trading does not recommence prior to the regularly scheduled close of trading in such Commodity Contract or Commodity on such Scheduled Commodity Business Day and such suspension is announced less than one-hour preceding its commencement; and
- (b) a limitation of trading in the Commodity Contract or the Commodity on any Scheduled Commodity Business Day shall be deemed to be material only if the Trading Facility establishes limits on the range within which the price of the Commodity Contract or the

Commodity may fluctuate and the closing or settlement price of the Commodity Contract or the Commodity on such day is at the upper limit of that range or at the lower limit of that range.

"Trading Facility" means (a) in respect of a Commodity or relevant Commodity Contract, the exchange or trading facility or principal trading market on which such Commodity or Commodity Contract is traded, and (b) in respect of Commodity Linked Securities linked to a single Commodity or basket of Commodities, the exchange or trading facility or principal trading market as specified in Part B (general terms) of the applicable Issue Specific Terms or Commodity Reference Price, or, in each case, any successor to such exchange or trading facility or principal trading market to which trading in the relevant Commodity or Commodity Contract has temporarily relocated, as determined, in its reasonable discretion, by the Calculation Agent.

"Unaffected Commodity Contract" has the meaning given thereto in Commodity Linked Provision 5(c)(i) (Consequences of Disruption Days and Disruption Events in respect of a Commodity Index).

"Underlying Price" means the price as defined in Part B (general terms) of the applicable Issue Specific Terms.

"**Unit**" means the unit of measure of the relevant Commodity, as specified in Part B (general terms) of the applicable Issue Specific Terms.

## Annex to General Conditions - Futures Contract Linked Provisions

# Adjustment, Modification and Disruption Provisions for Futures Contract Linked Securities

- 1. Consequences of Non-Scheduled Futures Business Days, Non-Common Scheduled Futures Business Days or Disrupted Days
- 1.1 Single Futures Contract and Reference Dates
- 1.2 Futures Basket and Reference Dates Individual Scheduled Futures Business Day and Individual Disrupted Day
- 1.3 Futures Basket and Reference Dates Common Scheduled Futures Business Day but Individual Disrupted Day
- 1.4 Futures Basket and Reference Dates Common Scheduled Futures Business Day and Common Disrupted Day
- 2. Successor Entity calculates and reports an Underlying Price
- 3. Corrections to published Underlying Prices
- 4. Fallback Valuation Date for a Single Futures Contract or Futures Basket
- 5. Rolling Futures Provisions
- 6. Adjustments, Additional Disruption Events and Change in Law
- 6.1 Adjustments following Additional Disruption Events
- 6.2 Change of applicable Law
- 7. Early Redemption
- 8. General Definitions

# 1. Consequences of Non-Scheduled Futures Business Days, Non-Common Scheduled Futures Business Days or Disrupted Days

#### 1.1 Single Futures Contract and Reference Dates

Where the Futures Contract Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Single Futures Contract, and

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Futures Contract is a Scheduled Futures Business Day that is not a Disrupted Day for such Futures Contract, then the Reference Date for such Futures Contract shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of such Futures Contract is not a Scheduled Futures Business Day, then the Reference Date in respect of such Futures Contract shall, subject to paragraph (c) below, be the first succeeding day that is a Scheduled Futures Business Day for such Futures Contract;
- (c) if the Calculation Agent determines that the Reference Date in respect of such Futures Contract is a Disrupted Day and, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("**Disruption Fallback**") specified is:
  - (i) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), taking into consideration the latest available quotation for the relevant price of the Futures Contract, the relevant market conditions at the time of the relevant determination and any other information that it deems relevant on such Reference Date; or
  - (ii) "Postponement", then the Reference Date for such Futures Contract shall be postponed to the first succeeding Scheduled Futures Business Day that the Calculation Agent determines is not a Disrupted Day, unless the Calculation Agent determines that each of the consecutive Scheduled Futures Business Days equal in number to the Maximum Days of Disruption immediately following such Reference Date is a Disrupted Day. In that case:
    - (A) the Scheduled Futures Business Day which falls such number of Scheduled Futures Business Days equal to the Maximum Days of Disruption immediately following the Reference Date shall be deemed to be the Reference Date for such Futures Contract, notwithstanding the fact that such day is a Disrupted Day; and
    - (B) the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

## provided that:

(iii) if the consequence of "**No Adjustment**" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for the relevant

Futures Contract shall be the Scheduled Reference Date, notwithstanding that such Scheduled Reference Date is not a Scheduled Futures Business Day or is a Disrupted Day, and the Underlying Price shall be determined in accordance with the "Calculation Agent Determination" provisions above on each such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall, in respect of such Reference Date, be deemed to be the Underlying Price in respect of the relevant Reference Date:

- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms; and
- (e) if the Calculation Agent determines that any Reference Date is a Disrupted Day in respect of such Futures Contract and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "Postponement" (with five (5) Scheduled Futures Business Days as the Maximum Days of Disruption) will be deemed to have been specified.

# 1.2 Futures Basket and Reference Dates – Individual Scheduled Futures Business Day and Individual Disrupted Day

Where the Futures Contract Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Futures Basket and such Issue Specific Terms specify that "Basket Valuation (Individual Scheduled Futures Business Day and Individual Disrupted Day)" applies, then:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Basket Futures is a Scheduled Futures Business Day that is not a Disrupted Day for such Basket Futures, then the Reference Date for such Basket Futures shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date in respect of any Basket Futures is not a Scheduled Futures Business Day for such Basket Futures, then the Reference Date in respect of such Basket Futures shall, subject to paragraph (c) below, be the first succeeding day that is a Scheduled Futures Business Day for such Basket Futures;
- (c) if the Calculation Agent determines, acting in its reasonable discretion, that the Reference Date for any Basket Futures is a Disrupted Day for such Basket Futures, then, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("Disruption Fallback") for such Basket Futures specified is:
  - (i) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), taking into consideration the latest available quotation for the relevant price of the Futures Contract, the relevant market conditions at the time of determination and any other information that it deems relevant on such Reference Date; or

- (ii) "Postponement", then the Reference Date for such Basket Futures shall be postponed to the first succeeding Scheduled Futures Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Basket Futures, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Scheduled Futures Business Days equal in number to the Maximum Days of Disruption in respect of such Basket Futures immediately following such Reference Date is a Disrupted Day for such Basket Futures. In that case:
  - (A) the Scheduled Futures Business Day which falls such number of Scheduled Futures Business Days equal to the Maximum Days of Disruption immediately following the Reference Date shall be deemed to be the Reference Date for such Basket Futures, notwithstanding the fact that such day may, or may not, be a Disrupted Day for such Basket Futures; and
  - (B) the Underlying Price for the Reference Date will be determined in accordance with the "Calculation Agent Determination" provisions above, *mutatis mutandis*;

## provided that,

- (iii) if the consequence of "**No Adjustment**" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Futures shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Futures Business Day or is a Disrupted Day for any Basket Futures, and the Underlying Price shall be determined in accordance with the "Calculation Agent Determination" provisions above on such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date;
- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms; and
- (e) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Disrupted Day in respect of any Basket Futures and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "**Postponement**" (with five (5) Scheduled Futures Business Days as the Maximum Days of Disruption) will be deemed to have been specified.
- 1.3 Futures Basket and Reference Dates Common Scheduled Futures Business Day but Individual Disrupted Day

Where the Futures Contract Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Futures Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Futures Business Day but Individual Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is a Scheduled Futures Business Day that is not a Disrupted Day for each Basket Futures, then the Reference Date for each Basket Futures shall be such Scheduled Reference Date:
- (b) if any Scheduled Reference Date is not a Scheduled Futures Business Day, then the Reference Date for each Basket Futures shall, subject to paragraph (c) below), be the first succeeding Common Scheduled Futures Business Day following such Scheduled Reference Date;
- (c) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Common Scheduled Futures Business Day but is a Disrupted Day for one or more Basket Futures, then the following provisions shall apply:
  - (i) if the Calculation Agent determines, acting in its reasonable discretion, that such Common Scheduled Futures Business Day is not a Disrupted Day for a Basket Futures, then the Reference Date for each Basket Futures shall be such Common Scheduled Futures Business Day;
  - (ii) if the Calculation Agent determines, acting in its reasonable discretion, that such Common Scheduled Futures Business Day is a Disrupted Day for a Basket Futures (any such Basket Commodities being "Affected Basket Commodities", and each such Basket Futures being an "Affected Basket Futures"), then, if in Part B (general terms) of the applicable Issue Specific Terms the consequence ("Disruption Fallback") for such Affected Basket Futures specified is:
    - (A) "Calculation Agent Determination", then the Calculation Agent will, in its reasonable discretion, determine the Underlying Price (or a method for determining an Underlying Price), for such Affected Basket Futures taking into consideration the latest available quotation for the relevant price of the Futures Contract, the relevant market conditions at the time of determination and any other information that it deems relevant on such Reference Date; or
    - (B) "Postponement", then the Reference Date for such Affected Basket Futures shall be postponed to the first succeeding Scheduled Futures Business Day that the Calculation Agent determines is not a Disrupted Day in respect of such Affected Basket Futures, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Scheduled Futures Business Days equal in number to the Maximum Days of Disruption in respect of such Affected Basket Futures immediately following the Reference Date is a Disrupted Day for such Affected Basket Futures. In that case:
      - (1) the Scheduled Futures Business Day which falls such number of Scheduled Futures Business Days after the Reference Date equal to the Maximum Days of Disruption shall be deemed to be the Reference Date for such Affected Basket Futures, notwithstanding the fact that such day is a Disrupted Day for such Affected Basket Futures; and

(2) the Underlying Price for the Reference Date will be determined in accordance with the 'Calculation Agent Determination' provisions above, *mutatis mutandis*;

## provided that:

- (C) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Futures shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Futures Business Day or is a Disrupted Day for such Basket Futures, and the Underlying Price shall be determined in accordance with the "Calculation Agent Determination" provisions above on such Reference Date, *mutatis mutandis*, and such determination by the Calculation Agent shall be deemed to be the Underlying Price in respect of the relevant Reference Date;
- (d) Part B (general terms) of the applicable Issue Specific Terms may provide that one or more of the Disruption Fallbacks may apply to any Reference Date, and that such applicable Disruption Fallbacks may apply concurrently or sequentially, in such manner as specified in Part B (general terms) of the applicable Issue Specific Terms; and
- (e) if the Calculation Agent determines, acting in its reasonable discretion, that any Reference Date is a Disrupted Day in respect of any Basket Futures and, Part B (general terms) of the applicable Issue Specific Terms do not specify a Disruption Fallback, then the Disruption Fallback of "**Postponement**" (with five (5) Scheduled Futures Business Days as the Maximum Days of Disruption) will be deemed to have been specified.

## 1.4 Futures Basket and Reference Dates – Common Scheduled Futures Business Day and Common Disrupted Day

Where the Futures Contract Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Futures Basket and such Issue Specific Terms specify that "Basket Valuation (Common Scheduled Futures Business Day and Common Disrupted Day)" applies, the following provisions shall apply:

- (a) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is a Scheduled Futures Business Day that is not a Disrupted Day for each Basket Futures, then the Reference Date for each Basket Futures shall be such Scheduled Reference Date;
- (b) if the Calculation Agent determines, acting in its reasonable discretion, that any Scheduled Reference Date is not a Common Scheduled Futures Business Day or is a Disrupted Day for one or more Basket Futures, then the Reference Date for each Basket Futures shall be the first succeeding Common Scheduled Futures Business Day following such Scheduled Reference Date which the Calculation Agent determines is not a Disrupted Day for each Basket Futures, unless the Calculation Agent determines, acting in its reasonable discretion, that each of the consecutive Common Scheduled Futures Business Days equal in number to the Maximum Days of Disruption

immediately following such Scheduled Reference Date is a Disrupted Day for one or more Basket Futures. In that case:

- (i) the Common Scheduled Futures Business Day which falls such number of Common Scheduled Futures Business Days equal to the Maximum Days of Disruption following the Scheduled Reference Date shall be deemed to be the Reference Date for each Basket Futures, notwithstanding the fact that such day may or may not be a Disrupted Day for one or more Basket Futures;
- (ii) for each Basket Futures, the Underlying Price shall be determined, in its reasonable discretion, by the Calculation Agent on that Reference Date, taking into consideration the latest available quotation for each of the relevant Futures Prices, the relevant market conditions at the time of determination and any other information that the Calculation Agent deems relevant on such Reference Date;

## provided that:

(iii) if the consequence of "No Adjustment" is specified in Part B (general terms) of the applicable Issue Specific Terms, then each Reference Date for each Basket Futures shall be the Scheduled Reference Date, notwithstanding the fact that such Scheduled Reference Date is not a Scheduled Futures Business Day or is a Disrupted Day for such Basket Futures, and the Underlying Price for the relevant Reference Date shall be determined by the Calculation Agent, in its reasonable discretion, taking into consideration the latest available quotation for the relevant Futures Price, the relevant market conditions at the time of determination and any other information that it deems appropriate.

## 2. Successor Entity calculates and reports an Underlying Price

If in respect of any relevant Reference Date or any Calculation Date, either an Underlying Price is (i) not calculated and announced by the Trading Facility but is calculated and announced by a successor entity acceptable to the Calculation Agent or (ii) replaced by a successor price calculated using, as determined, in its reasonable discretion, by the Calculation Agent, the same or a substantially similar formula for and method of calculation as used in the calculation of such Underlying Price, then in each case, such price as so calculated will be deemed to be the Underlying Price.

If the Calculation Agent determines, in its reasonable discretion, that either (A) the relevant successor to the Trading Facility is not acceptable as aforesaid, or (B) that the new Underlying Price is not suitable or would not otherwise produce a commercially reasonable result, it may direct the Issuer to redeem the Futures Contract Linked Securities under Futures Contract Linked Provision 7 (*Early Redemption*) below.

#### 3. Corrections to published Underlying Prices

If a price of the Futures Contract published or announced on a given day and used or to be used by the Calculation Agent to determine any Underlying Price or other amount on any Reference Date is subsequently corrected and the correction is published or announced by the Trading Facility or any other person responsible for such publication or announcement by the second Business Day prior to the date on which any payment is due in respect of the relevant publication or announcement, such corrected price shall be the price of the Futures Contract, and the Calculation Agent, to the extent it deems necessary, may make appropriate adjustments to any of the terms of the Futures Contract Linked Securities to account for such correction, provided that, if a Correction Cut-off Date has been specified as applicable in Part B (general terms) of the applicable Issue Specific Terms, corrections published after such Correction Cut-off Date will be disregarded by the Calculation Agent for the purposes of determining or calculating any relevant amount, and/or whether any event specified in Part B (general terms) of the applicable Issue Specific Terms has occurred.

## 4. Fallback Valuation Date for a Single Futures Contract or Futures Basket

Where the Futures Contract Linked Securities are specified in Part B (general terms) of the applicable Issue Specific Terms to relate to a Single Futures Contract or a Futures Basket, and notwithstanding any other terms of these Futures Contract Linked Provisions, if a Fallback Valuation Date is specified in Part B (general terms) of the applicable Issue Specific Terms to be applicable to any Reference Date for a Futures Contract (including a Basket Futures), and if, following adjustment of such Reference Date pursuant to Futures Contract Linked Provision 1 (Consequences of Non-Scheduled Futures Business Days, Non-Common Scheduled Futures Business Days or Disrupted Days) above (for the purposes of this Futures Contract Linked Provision 4, an "Affected Futures"), the Reference Date would otherwise fall after the specified Fallback Valuation Date in respect of such Affected Futures, then the Fallback Valuation Date shall be deemed to be such Reference Date for such Affected Futures.

If such Fallback Valuation Date is not a Scheduled Futures Business Day or a Common Scheduled Futures Business Day, as applicable, or is a Disrupted Day in respect of such Affected Futures, the Underlying Price of such Affected Futures shall be determined in accordance with the 'Calculation Agent Determination' provisions above on such Fallback Valuation Date, and the price so determined by the Calculation Agent pursuant to this Futures Contract Linked Provision 4 shall be deemed to be the Underlying Price in respect of the relevant Reference Date.

## 5. Rolling Futures Provisions

If it is specified in the applicable Issue Specific Terms that the "Rolling Futures Provisions" apply, the relevant Futures Contract (if the Futures Contract Linked Securities reference a Single Futures Contract) or the relevant Basket Futures (if the Futures Contract Linked Securities reference a Futures Basket) shall be replaced on each Rollover Date for that Futures Contract or Basket Futures, as applicable, with a Futures Contract (including a Basket Futures) for which the expiration date falls in the nearest Relevant Month specified in the Issue Specific Terms. If, in the reasonable discretion of the Calculation Agent, there is no Futures Contract at this time the underlying terms or applicable contract characteristics of which are substantially identical to those of the Futures Contract or the Basket Futures, as applicable, to be replaced, the Calculation Agent may direct the Issuer to redeem the Futures Contract Linked Securities under Futures Contract Linked Provision 7 (Early Redemption). The Calculation Agent furthermore has the right to adjust the Relevant Month in the case of a change of the authoritative rules of the Trading Facility concerning expiration dates. Any such adjustment is announced in accordance with Section 17 of the General Conditions. Each reference in the Conditions to "Futures Contract"

or "Basket Futures" is regarded as a reference to the futures contract or basket futures that is relevant at the applicable time following completion of the replacement outlined above.

The following adjustments will be made on the Rollover Date:

(a) In the case of Mini Future Warrants or Turbo Certificates the following adjustments are made on the Rollover Date, the Current Strike shall be adjusted, such that, immediately following the adjustment of the Current Strike on the Rollover Date under Section 8 of the General Conditions, the result of the following calculation, rounded to the nearest multiple of the Strike Rounding Amount, is the new Current Strike (rounded up in the case of Mini Future Long Warrants or Turbo Long Certificates and rounded down in the case of Mini Future Short Warrants or Turbo Short Certificates).

## in the case of Mini Future Long Warrants or Turbo Long Certificates

$$Strike_{new} = Strike_{old} - Rollover Price_{old} \times (1 - Fee) + Rollover Price_{new} \times (1 + Fee)$$

## in the case of Mini Future Short Warrants or Turbo Short Certificates

$$Strike_{new} = Strike_{old} - Rollover Price_{old} \times (1 + Fee) + Rollover Price_{new} \times (1 - Fee)$$

(b) In the case of Open End Turbo Warrants or Trader Certificates the Current Strike shall be adjusted, such that, immediately following the adjustment of the Current Strike on the Rollover Date under Section 8 of the General Conditions, the result of the following calculation, rounded to the nearest multiple of the Strike Rounding Amount, is the new Current Strike (rounded up in the case of Open End Turbo Bull Warrants or Trader Long Certificates and rounded down in the case of Open End Turbo Bear Warrants or Trader Short Certificates).

<sup>&</sup>quot;Strike<sub>new</sub>" means the Current Strike after the Rollover Date

<sup>&</sup>quot;Strike<sub>old</sub>" means the Current Strike adjusted on the Rollover Date in accordance with Section 8 of the General Conditions

<sup>&</sup>quot;Rollover Price<sub>old</sub>" means the Rollover Price for the relevant Futures Contract or Basket Futures, as applicable, prior to the Rollover

<sup>&</sup>quot;Rollover Pricenew" means the Rollover Price for the Futures Contract after the Rollover

<sup>&</sup>quot;Fee" means the Transaction Fee specified in the Futures Contract Linked Provision 8 (Definitions)

#### in the case of Open End Turbo Bull Warrants or Trader Long Certificates

$$Strike_{new} = Strike_{old} - Rollover Price_{old} \times (1 - Fee) + Rollover Price_{new} \times (1 + Fee)$$

## in the case of Open End Turbo Bear Warrants or Trader Short Certificates

$$Strike_{new} = Strike_{old} - Rollover Price_{old} \times (1 + Fee) + Rollover Price_{new} \times (1 - Fee)$$

"Strike<sub>old</sub>" means the Current Strike adjusted on the Rollover Date in accordance with Section 8 of the General Conditions

"*Rollover Price<sub>old</sub>*" means the Rollover Price for the relevant Futures Contract or Basket Futures, as applicable, prior to the Rollover

"Rollover Price<sub>new</sub>" means the Rollover Price for the Futures Contract after the Rollover

"Fee" means the Transaction Fee specified in the Futures Contract Linked Provision 8 (Definitions)

## 6. Adjustments, Additional Disruption Events and Change in Law

## 6.1 Adjustments following Additional Disruption Events

If the Calculation Agent determines, in its reasonable discretion, that an Additional Disruption Event specified as applicable in Part B (general terms) of the applicable Issue Specific Terms has occurred and it has material effect on the Futures Contract Linked Securities, it may, in its reasonable discretion, determine the appropriate adjustment, if any, to be made to any one or more of the terms of the Futures Contract Linked Securities, including without limitation, any variable or term relevant to the settlement or payment under the Futures Contract Linked Securities, as the Calculation Agent determines, in its reasonable discretion, appropriate to account for the relevant Additional Disruption Event, and determine the effective date of that adjustment. If the Calculation Agent determines, in its reasonable discretion, that no adjustment it could make under this Futures Contract Linked Provision 6.1 would produce a commercially reasonable result, it may direct the Issuer to redeem the Futures Contract Linked Securities under Futures Contract Linked Provision 7 (*Early Redemption*) below.

## 6.2 Change of applicable law

If "Change in Law" is specified as applicable in Part B (general terms) of the applicable Issue Specific Terms and upon the Calculation Agent becoming aware of the occurrence of a Change in Law, the Calculation Agent may, in its reasonable discretion: (i) make such amendments or adjustments to the terms of the Futures Contract Linked Securities as may be required such that the performance by the Issuer, the Guarantor, the Paying Agent, the Registrar (if applicable) or the Calculation Agent of any of their respective roles under the Futures Contract Linked

<sup>&</sup>quot;Strike<sub>new</sub>" means the Current Strike after the Rollover Date

Securities shall no longer be unlawful or impracticable under applicable law, provided that (a) such amendments or adjustments are effected in such a manner as to preserve insofar as possible and practicable the commercial terms of the Futures Contract Linked Securities prior to such amendments or adjustments, (b) any proposed substitution of the Issuer may only be effected in accordance with Section 15 (*Substitution of Issuer*) of the General Conditions and (c) if the Calculation Agent determines, in its reasonable discretion, that no adjustment it could make under this paragraph Futures Contract Linked Provision 6.2 would produce a commercially reasonable result, it may direct the Issuer to redeem the Futures Contract Linked Securities under Futures Contract Linked Provision 6 (*Early Redemption*) below.

The preceding paragraph shall apply in respect of each Futures Contract Linked Security which has not been redeemed on or prior to the date of the early redemption notice under Futures Contract Linked Provision 7 (*Early Redemption*) below (the "**Notice Effective Date**"), and, for the avoidance of doubt, if a Futures Contract Linked Security has been exercised pursuant to Section 2 (*Exercise*) of the General Conditions on or prior to the Notice Effective Date in respect of such Futures Contract Linked Security, but such Futures Contract Linked Security has not yet been redeemed on or prior to such date, then such exercise pursuant to Section 2 (*Exercise*) of the General Conditions shall be deemed to be void and of no effect, and such Futures Contract Linked Security shall be redeemed in accordance with and pursuant to the preceding paragraph.

## 7. Early Redemption

If following the occurrence of any of the relevant events listed in Futures Contract Linked Provision 2 (Successor Entity calculates and reports an Underlying Price), Futures Contract Linked Provision 5 (Rolling Futures Provisions) or Futures Contract Linked Provision 6 (Adjustments, Additional Disruption Events and Change in Law) above, the Calculation Agent has directed the Issuer to redeem the Futures Contract Linked Securities, the Issuer shall, within one month following the occurrence of the relevant event, give notice to Security Holders in accordance with Section 17 (Notices) of the General Conditions designating a termination date (the "Termination Date"). On the Termination Date, the Issuer shall redeem all, but not some only, of the Futures Contract Linked Securities and it shall pay an amount equal to the Termination Amount to each Security Holder in respect of each Futures Contract Linked Security held by it. Payment of the Termination Amount will be made in such manner as shall be notified to the Security Holders in accordance with Section 17 (Notices) of the General Conditions.

#### 8. General Definitions

The following terms and expressions shall have the following meanings in relation to Futures Contract Linked Securities to which these Futures Contract Linked Provisions apply:

"Additional Disruption Events" means a Hedging Disruption or an Increased Cost of Hedging (each an "Additional Disruption Event").

"Affected Futures" has the meaning given thereto in Futures Contract Linked Provision 4 (Fallback Valuation Date for a Single Futures Contract or Futures Basket).

"Affected Basket Futures" and "Affected Basket Commodities" have the meaning given thereto in Futures Contract Linked Provision 1.3(c)(ii) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day but Individual Disrupted Day).

"Basket Futures" means each Futures Contract which is a component of a Futures Basket, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Agent Determination" has the meaning given thereto in Futures Contract Linked Provision 1.1(c)(i) (Single Futures Contract and Reference Dates), Futures Contract Linked Provision 1.2(c)(i) (Futures Basket and Reference Dates – Individual Scheduled Futures Business Day and Individual Disrupted Day) and Futures Contract Linked Provision 1.3(c)(ii)(A) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day but Individual Disrupted Day), as applicable.

"Calculation Date" means the date specified in Part B (general terms) of the applicable Issue Specific Terms.

"Calculation Hours" has the meaning given to it in Part B (general terms) of the applicable Issue Specific Terms.

"Change in Law" means any event or action or announcement of the intention to take any action, on or after the Issue Date, that in the reasonable determination of the Calculation Agent adversely affects the ability of Goldman Sachs to establish or maintain Hedging Positions with respect to the Futures Contract Linked Securities, that are reasonably necessary to the management of risk arising from the Futures Contract Linked Securities, including, but not limited to, any applicable law, regulation, ruling, rule, procedure or order (any tax law and any Sanction Rules as if applicable to the Issuer and each of its affiliates in relation to the Securities and/or any related Hedging Positions) ("Applicable Laws") or the amendment, reinterpretation or promulgation of an interpretation of any such Applicable Laws by any regulatory, self-regulatory or legislative body, judicial authority, tax authority with competent jurisdiction (including, without limitation, any relevant exchange or trading facility, taxing authority or revenant Clearing System) ("Regulatory Authority") (including, without limitation, as implemented by any United States, European or Asian Regulatory Authority (including the Commodity Futures Trading Commission and the Relevant European Authorities) or exchange, trading facility, central counterparty or other clearing organisation) that results in (a) the elimination, limitation, withdrawal or unavailability for any reason of any hedge exemptions from applicable position limits previously granted to Goldman Sachs by any such Regulatory Authority or any such exchange, trading facility, central counterparty or other clearing organisation, or any hedge exemptions otherwise available to Goldman Sachs under Applicable Laws; or (b) a restriction or revision of existing position limits applicable to Goldman Sachs in respect of, or the imposition of position limits to, any Hedging Positions established by Goldman Sachs in connection with the Futures Contract Linked Securities to the extent that such application prevents or adversely affects Goldman Sachs from establishing or maintaining Hedging Positions that are reasonably necessary in order for it to manage the risk arising from or in connection with the Futures Contract Linked Securities, or such other Applicable Laws of any jurisdiction which have an analogous affect to any events specified in (a) and (b) above; or (c) Goldman Sachs incurring a materially increased cost in performing its obligations under the Futures Contract Linked Securities or in acquiring, establishing, re-establishing, substituting, unwinding, maintaining or disposing of any Hedge Positions with respect to the Futures Contract Linked Securities (including, without limitation, due to any mandatory margining or clearing requirement, any increase in capital charges, taxes or level of capital that is required to be set aside in respect of the Futures Contract Linked Securities or such Hedge Positions).

"Common Scheduled Futures Business Day" means, in respect of a Futures Basket, each day which is a Scheduled Futures Business Day for all Basket Futures in that Futures Basket.

"Correction Cut-off Date" means, in respect of any Futures Contract, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms, or, if "Correction Cut-off Date" is specified in the Issue Specific Terms to be applicable to any date on which the price of such Futures Contract is required to be determined, but no date is specified for the Correction Cut-off Date, then the Correction Cut-off Date for such Futures Contract and such date shall be the second Business Day prior to the next following date upon which any payment or delivery of assets may have to be made by the Issuer by reference to the price of such Futures on such day.

"Disappearance of Underlying Price" means, in respect of a Futures Contract,

- (a) the permanent discontinuation of trading in the relevant Futures Contract on the relevant Trading Facility;
- (b) the disappearance of, or of trading in, such Futures; or
- (c) the disappearance or permanent discontinuation or unavailability of the Underlying Price, notwithstanding the availability of the Price Source or the status of trading in the relevant Futures Contract.

"**Disrupted Day**" means a Scheduled Futures Business Day on which (i) the Trading Facility is not open for trading during its regular trading session or (ii) on which a Disruption Event occurs.

"**Disruption Event**" means the occurrence on any day of any one or more of the following, as determined by the Calculation Agent:

- (i) Disappearance of Underlying Price;
- (ii) Material Change in Content;
- (iii) Material Change in Formula;
- (iv) Price Source Disruption;
- (v) Tax Disruption; or
- (vi) Trading Disruption.

"Disruption Fallback" has the meaning given thereto in Futures Contract Linked Provision 1.1(c) (Single Futures Contract and Reference Dates), Futures Contract Linked Provision 1.2(c) (Futures Basket and Reference Dates – Individual Scheduled Futures Business Day and Individual Disrupted Day) and Futures Contract Linked Provision 1.3(c) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day but Individual Disrupted Day), as applicable.

"Fallback Valuation Date" means, in respect of a Futures or a Futures Basket and any relevant date, the date(s) specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Futures Contract" means, in respect of an issue of Futures Contract Linked Securities relating to a Single Futures Contract, the Futures Contract, and in respect of an issue of Futures Contract Linked Securities relating to a Futures Basket, each Basket Future, in each case specified in Part B (general terms) of the applicable Issue Specific Terms, and related expressions shall be construed accordingly.

"**Futures Basket**" means a basket of Futures Contracts, as specified in Part B (general terms) of the applicable Issue Specific Terms.

"Futures Contract Linked Securities" means Securities specified as "Futures Contract Linked Securities" in Part B (general terms) of the applicable Issue Specific Terms.

"Hedging Disruption" means, in respect of any Futures Contract Linked Securities, that the Hedging Entity is unable or it is or has become not reasonably practicable, or it has otherwise become undesirable, for any reason, for the Hedging Entity, wholly or partially, after using commercially reasonable efforts and acting in good faith, to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary or desirable to hedge the Hedging Entity's obligations in respect of the relevant Futures Contract Linked Securities or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), as determined by the Issuer.

"Hedging Entity" means the Calculation Agent or another member of the Goldman Sachs Group.

"Hedging Positions" means, for the purposes of the "Change in Law" definition, any position, including, without limitation, any purchase, sale, entry into or maintenance of one or more (i) positions or contracts in futures, options, swaps or other derivatives or foreign exchange, securities or (ii) other instruments or arrangements (howsoever described) established or maintained by Goldman Sachs in order to hedge, individually or on a portfolio basis, the Futures Contract Linked Securities.

"Increased Cost of Hedging" means that the Hedging-Entity would incur a materially increased costs (as compared with circumstances existing on the Issue Date), including, without limitation, increased tax (including any potential tax which the Calculation Agent considers may arise), duty, expense or fee (other than brokerage commissions) to (a) hold, acquire, establish, reestablish, substitute, maintain, unwind or dispose of any transaction(s) or asset(s) it deems necessary to hedge the Hedging-Entity's obligations with respect to the Futures Contract Linked Securities, or (b) realise, recover or remit the proceeds of any such transaction(s) or asset(s), provided that any such materially increased amount that is incurred solely due to the deterioration of the creditworthiness of the Issuer shall not be deemed an Increased Cost of Hedging.

"Material Change in Content" means, in respect of a Futures Contract, the occurrence since the Issue Date of a material change in the content, composition or constitution of the relevant Futures Contract, or any other change to the terms of that Futures Contract. "Material Change in Formula" means, in respect of a Futures Contract, the occurrence since the Issue Date of a material change in the formula for or the method of calculating the relevant Underlying Price.

"Maximum Days of Disruption" means in respect of Futures Contract Linked Securities that relate to:

- (a) a Single Futures Contract, five Scheduled Futures Business Days; or
- (b) a Futures Basket and Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Futures Business Day and Common Disrupted Day)" does not apply, five Scheduled Futures Business Days; or
- (c) a Futures Basket and Part B (general terms) of the applicable Issue Specific Terms specify that "Basket Valuation (Common Scheduled Futures Business Day and Common Disrupted Day)" applies, five Common Scheduled Futures Business Days;

or, in each case, such other number of Scheduled Futures Business Days, Scheduled Futures Trading Days or Common Scheduled Futures Business Days, as applicable (or other type of days) specified in Part B (general terms) of the applicable Issue Specific Terms.

"Nearby Month", when preceded by a numerical adjective, means, in respect of a Reference Date or a Calculation Date, as applicable, the month of expiration of the Futures Contract, as specified in the Issue Specific Terms, identified by that numerical adjective, so that, for example, (i) "First Nearby Month" means the month of expiration of the first Futures Contract to expire following the Reference Date or Calculation Date, as applicable; (ii) "Second Nearby Month" means the month of expiration of the second Futures Contract to expire following the Reference Date or Calculation Date, as applicable; and (iii) "Sixth Nearby Month" means the month of expiration of the sixth Futures Contract to expire following the Reference Date or Calculation Date, as applicable.

"No Adjustment" has the meaning given thereto in Futures Contract Linked Provision 1.1(c)(iii) (Single Futures Contract and Reference Dates), Futures Contract Linked Provision 1.2(c)(iii) (Futures Basket and Reference Dates – Individual Scheduled Futures Business Day and Individual Disrupted Day) Futures Contract Linked Provision 1.3(c)(ii)(C) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day but Individual Disrupted Day) and Futures Contract Linked Provision 1.4(b)(iii) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day and Common Disrupted Day), as applicable.

"Postponement" has the meaning given thereto in Futures Contract Linked Provision 1.1(c)(ii) (Single Futures Contract and Reference Dates), Futures Contract Linked Provision 1.2(c)(ii) (Futures Basket and Reference Dates – Individual Scheduled Futures Business Day and Individual Disrupted Day), Futures Contract Linked Provision 1.3(c)(ii)(B) (Futures Basket and Reference Dates – Common Scheduled Futures Business Day but Individual Disrupted Day), as applicable.

"**Price Source Disruption**" means the temporary or permanent failure by the Trading Facility to publish the price.

"Reference Date" means each Scheduled Reference Date, as adjusted in accordance with these Futures Contract Linked Provisions.

"Relevant European Authorities" means, for the purposes of the "Change in Law" definition, the European Commission, the European Parliament, the Council of the European Union, the European Securities and Markets Authority, the European Banking Authority, the European Insurance and Occupational Pensions Authority, the European Central Bank, and any competent authority of a member state of the European Economic Area.

"Relevant Month" means the month specified in the applicable Issue Specific Terms.

"Relevant Screen Page" means the Bloomberg page or ticker as specified in Part B (general terms) of the applicable Issue Specific Terms or any official successor thereto, as determined by the Calculation Agent in its reasonable discretion.

"Rollover" means a rollover of a relevant Futures Contract on its Rollover Date in accordance with Futures Contract Linked Provision 5.

"Rollover Price" means the rollover price specified in, or determined in the manner prescribed by, the applicable Issue Specific Terms. The Calculation Agent has the right, through an announcement in accordance with Section 17 of the General Conditions stating the calendar day on which the change becomes effective and subject to a prior notice period of at least one month, to adjust at its reasonable discretion the applicable timeframe for the calculation and determination of the rollover price for all Futures Contracts (for example, in the case of a change in trading times on the Trading Facility), provided the timeframe in the case of such a change will not exceed three (3) hours. The "Rollover Reference Prices" are the prices determined and published on the Trading Facility on the Rollover Date for the relevant Futures Contract (including the official closing rate).

"Rollover Date" means the rollover date specified in, or determined in the manner prescribed by, the applicable Issue Specific Terms. Should there be insufficient liquidity in the Underlying on the Trading Facility on a rollover date or a comparable unusual market situation in the reasonable discretion of the Calculation Agent, the Calculation Agent is entitled to specify another Calculation Date as the Rollover Date. The Calculation Agent furthermore has the right, through an announcement in accordance with Section 17 of the General Conditions stating the calendar day on which the change becomes effective and subject to a prior notice period of at least one month, to determine a different Rollover Date in its reasonable discretion. This is particularly the case when the rules affecting the determination of the Rollover Date are changed at the Trading Facility. If the effective date falls on a Rollover Date, the Settlement Amount shall be determined on the basis of the Rollover Price for the current Futures Contract or Basket Futures on the Rollover Date prior to the Rollover and on the basis of the Current Strike on the Rollover Date prior to the adjustment made pursuant to Futures Contract Linked Provision 5 (*Rolling Futures Provisions*).

"Sanction Rules" means any applicable law, rule, regulation, judgment, order, sanction, directive or designation of any governmental, administrative, legislative or judicial authority or

power, in each case, relating to any economic or financial sanctions and embargo programmes, including, but not limited to, those enacted, administered and/or enforced, from time to time, by (or by any agency or other authority of) the United States, the United Kingdom, the European Union (or any Member State thereof), Switzerland or the United Nations, and which financial sanctions and embargo programs may include (without limitation), those restrictions applicable to designated or blocked persons.

"Scheduled Futures Business Day" means a day that is (or, but for the occurrence of a Disruption Event, would have been) a day on which such Trading Facility is open for trading during its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time.

"Scheduled Futures Trading Day" means, in respect of an Affected Futures Contract, a day on which the relevant Trading Facility on which such Affected Futures Contract is traded is scheduled to be open for trading for its regular trading session.

"Scheduled Reference Date" means, in respect of the Futures Contract Linked Security, the Final Valuation Date and/or any other date specified as such in Part B (general terms) of the applicable Issue Specific Terms.

"Tax Disruption" means, in respect of a Futures Contract, the imposition of, change in or removal of an excise, severance, sales, use, value-added, transfer, stamp, documentary, recording or similar tax on, or measured by reference to, such Futures Contract (other than a tax on, or measured by reference to overall gross or net income) by any government or taxation authority after the Issue Date or such other date as may be specified in Part B (general terms) of the applicable Issue Specific Terms, if the direct effect of such imposition, change, or removal is to raise or lower the Underlying Price on the day that would otherwise be a Reference Date or a Calculation Date from what it would have been without that imposition, change, or removal.

"Termination Amount" means an amount in respect of each Futures Contract Linked Security which is determined by the Calculation Agent in its reasonable discretion as a fair market price of that Futures Contract Linked Security immediately prior to the Termination Date, taking into account the remaining time value of the relevant Futures Contract Linked Security and, if applicable, accrued interest. The Termination Amount will be rounded in the same manner as the Settlement Amount. When determining the Termination Amount, the Calculation Agent may, *inter alia*, also consider the probability of default of the Issuer based on the credit spreads quoted on the market or on the yields of bonds of the Issuer that are traded with sufficient liquidity at the time of determining the Termination Amount. In relation to Italian Listed Securities (to the extent required by the relevant regulated market and/or multilateral trading facility), the Termination Amount (to the extent specified in the Conditions) shall not be adjusted to account fully for any reasonable expenses and costs of the Issuer and/or its affiliates, including those relating to the unwinding of any underlying and/or related hedging and funding arrangements as determined by the Calculation Agent.

"**Trading Disruption**" means a suspension or limitation on trading set by the relevant Trading Facility or otherwise, whether because of price movements beyond the limits permitted by the

relevant Trading Facility or for other reasons in respect of futures contracts on the Trading Facility.

"Trading Facility" means the exchange or trading facility or principal trading market as specified in Part B (general terms) of the applicable Issue Specific Terms, or, in each case, any successor to such exchange or trading facility or principal trading market to which trading in the relevant Futures Contract has temporarily relocated, as determined, in its reasonable discretion, by the Calculation Agent.

"Transaction Fee" means initially the Initial Transaction Fee specified in the relevant Issue Specific Terms (the "Initial Transaction Fee"). The Calculation Agent is entitled to adjust the Transaction Fee up to the Maximum Transaction Fee specified in the relevant Issue Specific Terms (the "Maximum Transaction Fee"). The adjustment of the Transaction Fee and the effective date of the adjustment are announced pursuant to Section 17 of the General Conditions.

"**Underlying Price**" means the price as defined in Part B (general terms) of the applicable Issue Specific Terms.

## Annex to General Conditions - Standard form of Renouncement Notice (Italian Listed Securities)

## STANDARD FORM OF WAIVER OF EXERCISE

To be completed by the Holders of [Insert name of Securities], due [lacktriangle (the "Certificates/Warrants")

To: [Insert contact details of the Calculation Agent]	
e-mail: [Insert Calculation Agent e-mail]	
Attn.:	
Phone:	
and	
To: [Insert contact details of the Principal Programme Agent]	
Attn.:	
Phone:	
e-mail:	
and	
To: [Insert contact details of the relevant Clearing System]	
Attn.:	
Phone:	
e-mail:	
[and	
To: [Insert contact details of the Agent in Italy]	
Attn.:	
Phone:	
e-mail:]	
Failure properly to complete this Waiver of Exercise or to submit a substantially similar form of Waiver of Exercise shall result in the Waiver of Exercise being treated as null and void.	
PLEASE USE BLOCK CAPITALS	
1. Details of Holder(s) of the [Certificates/Warrants]	
Name:	
Address:	
Facsimile:	
Telephone:	

2.	Details of Series of [Certificates/Warrants]	
The S	Series of [Certificates] to which this Waiver of Exercise relates:	
3.	Waiver of Automatic Exercise	
cates	, being the holder of the [Certificates/Warrants] referred to below forming part of the above Series of [Certifi-Warrants], hereby waive the automatic exercise of such [Certificates/Warrants] in accordance with the terms conditions thereof.	
4.	Number of Certificates	
The n	number of [Certificates/Warrants] is as follows:	
5.	Dated	
6.	Signed	

#### V. FORM OF ISSUE SPECIFIC TERMS

In the case of (i) an increase of issue size of a Series of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 and/or (ii) a continuation of the offer of a Series of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 Feburary 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 the relevant information in Section "V. Form of Issue Specific Terms" of the Securities Note dated 8 July 2020 (as supplemented) and/or the relevant information in Section "V. Form of Issue Specific Terms" of the Securities Note dated 10 February 2021 (as supplemented) and/or the relevant information in Section "V. Form of Issue Specific Terms" of the Base Prospectus dated 9 February 2022 (as supplemented) which are incorporated by reference into this Base Prospectus (see Section ''XII.6. Information incorporated by reference") will apply.

The "Issue Specific Terms" of the Securities shall, for the relevant series of Securities, supplement and complete the General Conditions. A version of the Issue Specific Terms, as amended and completed for the specific series of Securities, will be replicated in the applicable Final Terms. The Issue Specific Terms as replicated in the applicable Final Terms and the General Conditions (including the applicable Underlying Specific Provisions) together constitute the "Conditions" of the relevant series of Securities.

The following Issue Specific Terms set out the product specific terms (the "Product specific terms") of the respective type of Securities (Product No. [•] in the Base Prospectus), selected and completed in the applicable Final Terms, and, in addition, the general terms (the "General terms") which supplement the General Conditions set out in the Base Prospectus and which are applicable to the Securities.

# Part A - Product specific terms

# Product No. 1. Product specific terms applicable to Bonus Securities

Settlement Amount is:

[insert in case of Bonus Securities with Multiplier:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of the Reference Price and the Multiplier

(b) otherwise, the product of the Reference Price and the Multiplier.]

[insert in case of Bonus Securities with Nominal and/or Calculation Amount:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying
- (b) [if a Barrier Event has occurred, but the Reference Price is [equal to or] above the Initial Reference Price, the [Nominal][Calculation Amount][higher of the following values:
- (i) the [Nominal][Calculation Amount],
- (ii) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying], or
- (c)] if a Barrier Event has occurred [and the Reference Price is [equal to or] below the Initial Reference Price], the product of the [Nominal][Calculation Amount] and the Performance of the Underlying.]

[insert in case of Bonus Securities with Nominal and/or Calculation Amount and Participation Factor:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of (A) the [Nominal][Calculation Amount] and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1;
- (b) otherwise, [the product of the [Nominal][Calculation Amount] and the Performance of the Underlying][the higher of the following values:
- (i) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying; or
- (ii) the product of (A) the [Nominal][Calculation Amount] and
- (B) the sum of (x) 100 % and (y) the Participation Factor

multiplied by the difference between (i) the Performance of the

Underlying and (ii) 1.]]

Barrier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Barrier Event [Touch][Break]

Bonus Amount [Product of the Multiplier and the Bonus Level][Product of the

[Nominal][Calculation Amount] and the Bonus Level] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Bonus Level [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Calculation Amount] [•]

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

[Multiplier] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Nominal] [•]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Performance of the Underlying] [Reference Price divided by the Initial Reference Price] [Initial

Reference Price divided by the Reference Price [ • ]

Observation Price

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

# Product No. 2. Product specific terms applicable to Capped Bonus Securities

Settlement Amount is:

[insert in case of Capped Bonus Securities with Multiplier:

(a) if no Barrier Event has occurred, the higher of the following

values:

(i) the Bonus Amount, or

(ii) the product of the Reference Price and the Multiplier

(b) otherwise, the product of the Reference Price and the Mul-

tiplier.]

[insert in case of Capped Bonus Securities with Nominal and/or Calculation Amount:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying
- (b) [if a Barrier Event has occurred, but the Reference Price is [equal to or] above the Initial Reference Price, the [Nominal][Calculation Amount][higher of the following values:
- (i) the [Nominal][Calculation Amount],
- (ii) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying], or
- (c)] if a Barrier Event has occurred [and the Reference Price is [equal to or] below the Initial Reference Price], the product of the [Nominal][Calculation Amount] and the Performance of the Underlying.]

[insert in case of Capped Bonus Securities with Nominal and/or Calculation Amount and Participation Factor:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of (A) the [Nominal][Calculation Amount] and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1;
- (b) otherwise, [the product of the [Nominal][Calculation Amount] and the Performance of the Underlying][the higher of the following values:
- (i) the product of the [Nominal][Calculation Amount] and the Performance of the Underlying; or
- (ii) the product of (A) the [Nominal] [Calculation Amount] and (B) the sum of (x) 100 % and (y) the Participation Factor multiplied by the difference between (i) the Performance of the Underlying and (ii) 1.

The Settlement Amount in any case will not exceed the Maxi-

mum Amount.

Barrier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Barrier Event [Touch][Break]

Bonus Amount [Product of the Multiplier and the Bonus Level][Product of the

[Nominal][Calculation Amount] and the Bonus Level] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Bonus Level [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Calculation Amount] [•]

Cap [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

Maximum Amount [Product of the Multiplier and the Cap][Product of the [Nomi-

nal][Calculation Amount] and the Cap divided by the Initial Reference Price] [•] [As specified in Table 1 in the Annex to

the Issue Specific Terms]

[Multiplier] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Nominal] [•]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [ • ] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Performance of the Underlying] [Reference Price divided by the Initial Reference Price] [Initial

Reference Price divided by the Reference Price [ • ]

Observation Price

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

#### Product No. 3. Product specific terms applicable to Discount Securities

Settlement Amount is:

[insert in case of Discount Securities with Multiplier:

(a) if the Reference Price is above or equal to the Cap, the Maximum Amount, or

(b) if the Reference Price is below the Cap, the Reference Price multiplied by the Multiplier.]

[insert in case of Discount Securities with Nominal and/or Calculation Amount:

(a) if the Reference Price is above or equal to the Cap, the Maximum Amount, or

(b) if the Reference Price is below the Cap, the [Nominal][Calculation Amount] multiplied by the Performance of the Underlying.]

[insert in case of Discount Securities which may be settled by Physical Settlement::

(a) if the Reference Price is above or equal to the Cap, the Maximum Amount, or

(b) if the Reference Price is below the Cap, a quantity of [the Underlying] [shares of an Exchange Traded Fund] expressed by the Physical Delivery Unit.]

[Calculation Amount]

 $[\bullet]$ 

Cap

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

Maximum Amount

[Product of Multiplier and Cap][Product of [Nominal][Calculation Amount] and [Cap divided by the Initial Reference Price][Initial Reference Price divided by Cap]] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Multiplier]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Nominal]

[ullet]

[Performance of the Underlying]

[Reference Price divided by the Initial Reference Price][Initial Reference Price divided by the Reference Price][•]

Reference Price

[Underlying Price on the Final Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Share of an Exchange Traded [•] Fund]

#### Product No. 4. Product specific terms applicable to Reverse Convertible Securities

Settlement Amount

[insert in case of Reverse Convertible Securities which in any case are settled in cash:

The Settlement Amount is:

- (a) if the Reference Price is [equal to or] above the Strike, the [Nominal][Calculation Amount],
- (b) otherwise, the product of the [Nominal][Calculation Amount] and the Performance of the Underlying.]

[insert in case of Reverse Convertible Securities, which are possibly settled by Physical Settlement:

The Settlement Amount is:

- (a) if the Reference Price is [equal to or] above the Strike, the [Nominal][Calculation Amount],
- (b) otherwise, a quantity of [the Underlying] [shares of an Exchange Traded Fund] expressed by the Physical Delivery Unit.]

[Calculation Amount]

[ullet]

[Coupon]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Coupon Amount]

[•] [The Coupon Amount is calculated as follows: (a) in the case that the relevant Coupon Payment Date is on or before the Initial Instalment Date, the Coupon Amount equals the result of the following calculation: [Nominal][Calculation Amount] x Coupon x Coupon Day Count Fraction; or (b) in the case that the relevant Coupon Payment Date is after the Initial Instalment Date, the Coupon Amount equals the result of the following calculation: Final Instalment Amount x Coupon x Coupon Day Count Fraction.] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[ETF Reference Price]

[•] [The ETF Reference Price equals the [Net Asset Value (as [calculated by [•] and] published [•])][•] of the share of the ETF on the [Final Valuation Date][•]. If no [Net Asset Value] [•] is [calculated or] published on the [Final Valuation Date][•], the ETF Reference Price equals the [Net Asset Value][•] of the share of the ETF as it is [calculated and]

published on the next following ETF Valuation Date, unless the [Net Asset Value][•] is not [calculated and] published on the [[•] Payment Date][•] following the [Final Valuation Date [ • ] either. In that case a ETF Reference Price Disruption (the "ETF Reference Price Disruption") has occurred. If a ETF Reference Price Disruption has occurred, then in lieu of the delivery of the relevant Physical Delivery Amount and notwithstanding any other provision hereof, the Calculation Agent may satisfy its obligation in respect of the relevant Security Holder by payment to the relevant Security Holder of the Disruption Settlement Amount on the Settlement Date. The Calculation Agent shall give notice as soon as practicable in accordance with Section 11 of the General Conditions that a ETF Reference Price Disruption Event has occurred.] ["ETF Valuation Date" in this regard means [each day on which the [Net Asset Value [●] of the share of the ETF is published. [●]]

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

Nominal

•

 $[\bullet]$ 

[Performance of the Underlying]

[Reference Price divided by the [Initial Reference Price][Strike]] [[Initial Reference Price][Strike] divided by the Reference Price][•]

Reference Price

[Underlying Price on the Final Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Share of an Exchange Traded

Fund]

Strike

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

# Product No. 5. Product specific terms applicable to Barrier Reverse Convertible Securities

Settlement Amount

[insert in case of Barrier Reverse Convertible Securities, which in all cases are settled in cash:

The Settlement Amount is:

- (a) if the Reference Price is [equal to or] above the Strike, the [Nominal][Calculation Amount],
- (b) if the Reference Price is [equal to or] below the Strike, but no Barrier Event has occurred, the [Nominal][Calculation Amount],

(c) if the Reference Price is [equal to or] below the Strike, <u>and</u> a Barrier Event has occurred, the product of the [Nominal][Calculation Amount] and the Performance of the Underlying.]

[insert in case of Barrier Reverse Convertible Securities, which may be settled by Physical Settlement:

The Settlement Amount is:

- (a) if the Reference Price is [equal to or] above the Strike, the [Nominal][Calculation Amount],
- (b) if the Reference Price is [equal to or] below the Strike, but no Barrier Event has occurred, the [Nominal][Calculation Amount],
- (c) if the Reference Price is [equal to or] below the Strike <u>and</u> a Barrier Event has occurred, a quantity of [the Underlying] [shares of an Exchange Traded Fund] expressed by the Physical Delivery Unit.]
- [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Touch][Break]

[•]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[•] [The Coupon Amount is calculated as follows: (a) in the case that the relevant Coupon Payment Date is on or before the Initial Instalment Date, the Coupon Amount equals the result of the following calculation: [Nominal][Calculation Amount] x Coupon x Coupon Day Count Fraction; or (b) in the case that the relevant Coupon Payment Date is after the Initial Instalment Date, the Coupon Amount equals the result of the following calculation: Final Instalment Amount x Coupon x Coupon Day Count Fraction.] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[•] [The ETF Reference Price equals the [Net Asset Value (as [calculated by [•] and] published [•])][•] of the share of the ETF on the [Final Valuation Date][•]. If no [Net Asset Value] [•] is [calculated or] published on the [Final Valuation Date][•], the ETF Reference Price equals the [Net Asset Value][•] of the share of the ETF as it is [calculated and] published on the next following ETF Valuation Date, unless the

Barrier

**Barrier Event** 

[Calculation Amount]

[Coupon]

[Coupon Amount]

[ETF Reference Price]

[Net Asset Value][•] is not [calculated and] published on the [[•] Payment Date][•] following the [Final Valuation Date][•] either. In that case a ETF Reference Price Disruption (the "ETF Reference Price Disruption") has occurred. If a ETF Reference Price Disruption has occurred, then in lieu of the delivery of the relevant Physical Delivery Amount and notwith-standing any other provision hereof, the Calculation Agent may satisfy its obligation in respect of the relevant Security Holder by payment to the relevant Security Holder of the Disruption Settlement Amount on the Settlement Date. The Calculation Agent shall give notice as soon as practicable in accordance with Section 11 of the General Conditions that a ETF Reference Price Disruption Event has occurred.] ["ETF Valuation Date" in this regard means [each day on which the [Net Asset Value][•] of the share of the ETF is published.] [•]]

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

Nominal

•

Observation Period

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

**Observation Price** 

•

[Performance of the Underlying]

[Reference Price divided by the [Initial Reference Price][Strike]] [[Initial Reference Price][Strike] divided by the Reference Price][•]

Reference Price

[Underlying Price on the Final Valuation Date] [●] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Share of an Exchange Traded [•]

Fund]

Strike

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

## Product No. 6. Product specific terms applicable to Reverse Bonus Securities

Settlement Amount

The Settlement Amount is:

[insert in case of Reverse Bonus Securities with Multiplier: (a) if no Barrier Event has occurred, the higher of the following values:

(i) the Bonus Amount, or

- (ii) the product of (A) the Multiplier and (B) the difference between the Reverse Level and the Reference Price
- (b) otherwise, the product of (A) the Multiplier and (B) the difference between the Reverse Level and the Reference Price, in which case the Settlement Amount cannot be negative.]

[insert in case of Reverse Bonus Securities with Nominal and/or Calculation Amount:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Reference Price divided by the Initial Reference Price;
- (b) otherwise, the product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Reference Price divided by the Initial Reference Price, in which case the Settlement Amount cannot be negative.]
- [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Touch][Break]

[Product of (A) the Multiplier and (B) the difference between the Reverse Level and the Bonus Level][Product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Bonus Level divided by the Initial Reference Price] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[a] [As specified in Table [1][2] in the Anney to the Issue Spe-

- [•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]
- [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[•]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

Barrier

Barrier Event

Bonus Amount

Bonus Level

[Calculation Amount]

**Initial Reference Price** 

[Multiplier]

[Nominal]

**Observation Period** 

Observation Price

•

Reference Price

[Underlying Price on the Final Valuation Date] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Reverse Level

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

#### Product No. 7. Product specific terms applicable to Capped Reverse Bonus Securities

Settlement Amount

The Settlement Amount is:

[insert in case of Capped Reverse Bonus Securities with Multiplier:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of (A) the Multiplier and (B) the difference between the Reverse Level and the Reference Price
- (b) otherwise, the product of (A) the Multiplier and (B) the difference between the Reverse Level and the Reference Price, in which case the Settlement Amount cannot be negative.]

[insert in case of Capped Reverse Bonus Securities with Nominal and/or Calculation Amount:

- (a) if no Barrier Event has occurred, the higher of the following values:
- (i) the Bonus Amount, or
- (ii) the product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Reference Price divided by the Initial Reference Price;
- (b) otherwise, the product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Reference Price divided by the Initial Reference Price, in which case the Settlement Amount cannot be negative.]

The Settlement Amount in any case will not exceed the Maximum Amount.

Barrier

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

**Barrier Event** 

[Touch][Break]

Bonus Amount [Product of (A) the Multiplier and (B) the difference between

the Reverse Level and the Bonus Level][Product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Bonus Level divided by the Initial Reference Price] [•] [As specified in Table 1 in the An-

nex to the Issue Specific Terms]

Bonus Level [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Calculation Amount] [•]

Cap [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

Maximum Amount [Product of (A) the Multiplier and (B) the difference between

the Reverse Level and the Cap][Product of (A) the [Nominal][Calculation Amount] and (B) the difference between the Reverse Level and the Cap divided by the Initial Reference Price] [•] [As specified in Table 1 in the Annex to the Issue

Specific Terms]

[Multiplier] [•]

[Nominal] [•]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Observation Price

Reference Price [Underlying Price on the Final Valuation Date] [●] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Reverse Level [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

# Product No. 8. Product specific terms applicable to Open End Securities

Settlement Amount The Settlement Amount equals

[insert in the case of Open End Securities with Multiplier: the Reference Price multiplied by the Multiplier, then multiplied by the [Management Factor][insert in the case of Open End

Securities with a Quanto feature: Fee Factor

[insert in the case of Open End Securities with Nominal and/or Calculation Amount: the Performance of the Underlying multiplied by the [Nominal][Calculation Amount], then multiplied by the [Management Factor][insert in the case of Open End Securities with a Quanto feature: Fee Factor]

[Calculation Amount]

•

[Fee Factor]

[Term-dependent calculation of the Management Fee and the Quanto Fee according to the following formula:

$$\prod_{i=1}^{M} \frac{1}{(1 + G_{(i)}) \frac{n_{(i)}}{k}}$$

where the terms used in the formula have the following meanings:

" $G_{(i)}$ " means the sum of the Management Fee (i) and the Quanto Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"M" means the number of different sums  $(G_{(i)})$  of the Management Fee (i) and the Quanto Fee (i) during the term of the Securities

"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or the adjustment of the Quanto Fee or, if there is no adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Final Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee or the adjustment of the Quanto Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or the Quanto Fee during the term of the Securities, up to (and including) the Final Valuation Date.

"k" means [the number of actual calendar days in the calendar year (actual).] [insert alternative definition: ●]

The Fee Factor is commercially rounded to [●] decimal places on a daily basis.] [insert alternative formula for determination of Fee Factor: ●]

Initial Management Fee

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Initial Quanto Fee]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

[Management Factor]

[Term-dependent calculation of the Management Fee according to the following formula:

$$\prod_{i=1}^{M} \frac{1}{(1 + MG_{(i)})^{\frac{n_{(i)}}{k}}}$$

where the terms used in the formula have the following meanings:

" $\mathbf{MG_{(i)}}$ " means the Management Fee (i), where "i" represents the sequence of natural numbers from 1 to M.

"M" means the number of different Management Fees (i) during the term of the Securities

"n" for i=1 means the number of calendar days from (and including) the Initial Valuation Date up to (and including) the calendar day that precedes the effective date of an adjustment of the Management Fee or, if there is no adjustment of the Management Fee during the term of the Securities, up to (and including) the Final Valuation Date. "n" for i+1 means, in each case, the number of calendar days from (and including) the effective date of the adjustment of the Management Fee up to (and including) the calendar day that precedes the effective date of the next adjustment of the Management Fee or, if there is no further adjustment of the Management Fee during the term of the Securities, up to (and including) the Final Valuation Date.

"k" means [the number of actual calendar days in the calendar year (actual).] [insert alternative definition: •]

The Management Factor is commercially rounded to [●] decimal places on a daily basis.] [●]

The Management Fee for i=1 equals the Initial Management Fee. The Issuer has the right to adjust the Management Fee with effect on each Business Day up to the level of the Maximum

Management Fee

Management Fee. The adjustment of the Management Fee and the effective date of the adjustment are notified in accordance with Section 17 of the General Conditions. Each reference to the Management Fee (i) in the Conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Management Fee (i+1).

Maximum Management Fee

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Multiplier]

[The Multiplier initially equals •. The Multiplier is adjusted on each Rollover Date.] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

[Nominal]

[ullet]

[Quanto Fee]

The Quanto Fee for i=1 equals the Initial Quanto Fee. The Issuer has the right to adjust the Quanto Fee with effect on each Business Day, if in the reasonable discretion of the Calculation Agent this is necessitated by an increase or decrease of the costs to the Issuer arising from the hedging of currency risks, taking into account the interest rate of the Reference Currency, the interest rate for the Settlement Currency on which the currency hedge is based, the volatility of the Underlying, the volatility of the exchange rate between the Reference Currency and Settlement Currency, and the correlation between the price of the Underlying and the path of the foreign exchange rate. The adjustment to the Quanto Fee and the effective date of the adjustment are notified in accordance with Section 17 of the General Conditions. Each reference to the Quanto Fee (i) in the terms and conditions is regarded, with the effective date of the adjustment, as a reference to the adjusted Quanto Fee (i+1).] [•]

[Performance of the Underlying]

[Reference Price divided by the Initial Reference Price] [Initial Reference Price divided by the Reference Price] [•]

Reference Price

[Underlying Price on the Final Valuation Date] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

## Product No. 9. Product specific terms applicable to Plain Warrants

Settlement Amount

[In the case of Plain Call Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price exceeds the Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Reference Price – Strike) x Multiplier [x Participation Factor].]

[In the case of Plain Put Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price falls short of the Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Strike – Reference Price) x Multiplier [x Participation Factor].]

[In the case of Plain Call Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals the Performance of the Underlying multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = [Nominal][Calculation Amount] x Performance of the Underlying [x Participation Factor].]

[In the case of Plain Put Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals the Performance of the Underlying multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = [Nominal][Calculation Amount] x Performance of the Underlying [x Participation Factor].]

The Settlement Amount is at least zero (0).

[Calculation Amount]

 $[\bullet]$ 

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

[Multiplier]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Adjustment of Multiplier

[No][Not applicable]

[Nominal]

[ullet]

[Participation Factor]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

[Performance of the Underlying] [[Amount by which the Reference Price falls below the Strike

whereby the result will be divided by the Initial Reference Price] [Amount by which the Strike falls below the Reference Price whereby the result will be divided by the Initial Refer-

ence Price] [•]]

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Strike [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Strike No

# Product No. 10. Product specific terms applicable to Discount Warrants

Settlement Amount

[In the case of Discount Call Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price exceeds the Strike, multiplied by the Multiplier [and by the Participation Factor]. The Settlement Amount is limited to the Maximum Amount. The Maximum Amount is the amount by which the Cap exceeds the Strike, multiplied by the Multiplier [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = (min (Reference Price, Cap) – Strike) x Multiplier [x Participation Factor].]

[In the case of Discount Put Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price falls short of the Strike, multiplied by the Multiplier [and by the Participation Factor]. The Settlement Amount is limited to the Maximum Amount. The Maximum Amount is the amount by which the Cap falls short of the Strike, multiplied by the Multiplier [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = (Strike – max (Reference Price, Cap)) x Multiplier [x Participation Factor].]

[In the case of Discount Call Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price exceeds the Strike, whereby the result is [divided

by the Initial Reference Price and then] multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor ("**PF**")] [and the quotient of 1 and the Reference Price]. The Settlement Amount is limited to the Maximum Amount. The Maximum Amount is the amount by which the Cap exceeds the Strike, whereby the result is [divided by the Initial Reference Price and then] multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor] [and the quotient of 1 and the Reference Price].. Accordingly the Settlement Amount will be calculated as follows:

```
[Settlement Amount = Nominal \times \left(\frac{\min(Reference\ Price, Cap) - Strike}{Initial\ Reference\ Price}\right) [x PF].]
```

[Settlement Amount = [Nominal][Calculation Amount] x [min(Reference Price, Cap) – Strike [x PF] [x (1 / Reference Price)]]

[In the case of Discount Put Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals the amount by which the Reference Price falls short of the Strike, whereby the result is [divided by the Initial Reference Price and then] multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor ("**PF**")] [and the quotient of 1 and the Reference Price]. The Settlement Amount is limited to the Maximum Amount. The Maximum Amount is the amount by which the Cap falls short of the Strike, whereby the result is [divided by the Initial Reference Price and then] multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor] [and the quotient of 1 and the Reference Price]. Accordingly the Settlement Amount will be calculated as follows:

```
[Settlement Amount = Nominal \times \left(\frac{Strike-max(Reference\ Price,Cap)}{Initial\ Reference\ Price}\ [x\ PF]\right).]
```

[Settlement Amount = [Nominal][Calculation Amount] x [Strike - max(Reference Price, Cap) [x PF] [x (1 / Reference Price)]]

The Settlement Amount is at least zero (0).

[Calculation Amount]

[ullet]

Cap

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

Maximum Amount [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Multiplier] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Nominal] [•]

[Adjustment of Multiplier] [No]

[Participation Factor] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Strike [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Strike No

# Product No. 11. Product specific terms applicable to Mini Future Warrants or Turbo Certificates

Settlement Amount

[In the case of Mini Future Long Warrants or Turbo Long Certificates with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price exceeds the Current Strike prior to the Adjustment Time, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Reference Price – Current Strike) x Multiplier [x Participation Factor].]

[In the case of Mini Future Short Warrants or Turbo Short Certificates with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price falls short of the Current Strike prior to the Adjustment Time, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Current Strike - Reference Price) x Multiplier [x Participation Factor].]

The Settlement Amount is at least zero (0).

Adjustment Date [Each Calculation Date which is also a Business Day.][•]

Adjustment Time

First Strike Adjustment Date

**Initial Interest Margin** [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Initial Knock-Out Buffer [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

**Initial Reference Price** [•] [As specified in Table [1] [2] in the Annex to the Issue Spe-

cific Terms]

**Knock-Out Barrier** The Knock-Out Barrier on the Strike Date is [•][specified in

> Table 1 in the Annex to the Issue Specific Terms]. The Knock-Out Barrier will be regularly adjusted pursuant to Section 10 of

the General Conditions.

Adjustment of Knock-Out Bar-

rier

Amount

Knock-Out Barrier Rounding [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Yes

**Knock-Out Base Amount** [•][Not applicable]

**Knock-Out Event** [Touch][Break]

**Knock-Out Price** 

Rounding

Knock-Out Settlement Amount [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

**Knock-Out Settlement Period** 

Maximum Interest Margin [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Maximum Knock-Out Buffer [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Multiplier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Multiplier No

Observation Date

**Observation Hours** [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

**Observation Period** [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Reference Rate [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Reference Rate for the Reference Currency minus

Reference Rate for the Base Currency

Reference Rate for the Base Cur-

rency

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Rate for the Reference

Currency

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Rate Screen Page [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

the Base Currency

Reference Rate Screen Page for [ • ] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Rate Screen Page for

the Reference Currency

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Strike The Strike on the Strike Date is [●] [specified in Table 1 in the

> Annex to the Issue Specific Terms]. The Strike will be regularly adjusted pursuant to Section 8 of the General Conditions.

Adjustment of Strike Yes

Strike Date

Strike Rounding Amount [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

# Product No. 12. Product specific terms applicable to Turbo Warrants

Settlement Amount [In the case of Turbo Bull Warrants with Multiplier and Cash Settlement the following provision applies:

> The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price exceeds the Strike, multiplied by the Multiplier [and by the Participation

Factor], i.e.

Settlement Amount = (Reference Price – Strike) x Multiplier [x Participation Factor].]

[In the case of Turbo Bear Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price falls short of the Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Strike – Reference Price) x Multiplier [x Participation Factor].]

The Settlement Amount is at least zero (0).

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms] [Not applicable]

Knock-Out Barrier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

No

Adjustment of Knock-Out Bar-

rier

Knock-Out Event [Touch][Break]

Knock-Out Price

Knock-Out Settlement Amount •

Multiplier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Multiplier No

Observation Date •

Observation Hours [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [ • ] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Strike [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Strike No

# Product No. 13. Product specific terms applicable to Open End Turbo Warrants or Trader Certificates

**Settlement Amount** 

[In the case of Open End Turbo Bull Warrants or Trader Long Certificates with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price exceeds the Current Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Reference Price – Current Strike) x Multiplier [x Participation Factor].]

[In the case of Open End Turbo Bear Warrants or Trader Short Certificates with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price falls short of the Current Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Current Strike - Reference Price) x Multiplier [x Participation Factor].]

The Settlement Amount is at least zero (0).

Adjustment Date [Each Calculation Date which is also a Business Day.][●]

Adjustment Time

First Strike Adjustment Date •

Initial Interest Margin [●] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Initial Reference Price [●] [As specified in Table [1][2] in the Annex to the Issue Specific Terms] [Not applicable]

The Knock-Out Barrier on the Strike Date is [●][specified in Table 1 in the Annex to the Issue Specific Terms]. The Knock-Out Barrier will be regularly adjusted pursuant to Section 10 of the General Conditions.

Adjustment of Knock-Out Bar- Yes rier

**Knock-Out Barrier** 

**Knock-Out Event** [Touch][Break] **Knock-Out Price Knock-Out Settlement Amount** Maximum Interest Margin [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] Multiplier [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] Adjustment of Multiplier No Observation Date **Observation Hours** [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable] **Observation Period** [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable] [Participation Factor] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] Reference Price [Underlying Price on the Final Valuation Date] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] Reference Rate [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Reference Rate for the Reference Currency minus Reference Rate for the Base Currency Reference Rate for the Base Cur-[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable] rency Reference Rate for the Reference [•] [As specified in Table 1 in the Annex to the Issue Specific Currency Terms] [Not applicable] Reference Rate Screen Page [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable] Reference Rate Screen Page for [ • ] [As specified in Table 1 in the Annex to the Issue Specific the Base Currency Terms] [Not applicable] Reference Rate Screen Page for [•] [As specified in Table 1 in the Annex to the Issue Specific the Reference Currency Terms] [Not applicable] Strike The Strike on the Strike Date is [•][specified in Table 1 in the Annex to the Issue Specific Terms]. The Strike will be regularly adjusted pursuant to Section 8 of the General Conditions. Adjustment of Strike Yes

Strike Date

Strike Rounding Amount

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

#### Product No. 14. Product specific terms applicable to Factor Warrants

Settlement Amount

[In the case of Factor Warrants Long with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount in the case of an exercise by the Security Holder equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions,

the amount by which the Reference Price exceeds the Current Strike, multiplied by the Current Multiplier, i.e.

Settlement Amount = (Reference Price – Current Strike) x Current Multiplier]

[In the case of Factor Warrants Short with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount in the case of an exercise by the Security Holder equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions,

the amount by which the Reference Price falls short of the Current Strike, multiplied by the Current Multiplier, i.e.

Settlement Amount = (Current Strike – Reference Price) x Current Multiplier]

[The Settlement Amount is at least zero (0).] [The Settlement Amount is at least [•].]

Adjustment Date

[The Calculation Date following the Strike Date and each subsequent Calculation Date.][•]

First Observation Date

•

**Initial Interest Margin** 

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

**Initial Reference Price** 

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Initial Roll Over Spread

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Intrinsic Value Rounding

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

**Knock-Out Barrier** 

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Adjustment of Knock-Out Bar- No

rier

**Knock-Out Base Amount** [•] [Not applicable]

**Knock-Out Event** [Touch][Break]

Rounding

Knock-Out Settlement Amount [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Lever [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Maximum Interest Margin [•] [As specified in Table 1 in the Annex to the Issue Specific

[•] [As specified in Table 1 in the Annex to the Issue Specific Maximum Roll Over Spread

Terms]

Maximum Stop-Loss Buffer [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Multiplier The Multiplier on the Strike Date is [•][specified in Table 1 in

> the Annex to the Issue Specific Terms]. The Multiplier will be regularly adjusted pursuant to Section 9 of the General Condi-

tions.

Adjustment of Multiplier Yes

**Multiplier Rounding Amount** [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

**Observation Date** 

**Observation Hours** [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Observation Period  $[\bullet]$ 

[Underlying Price on the Final Valuation Date or, if between Reference Price

> the time of determination of the Underlying Price on the Final Valuation Date and the last Adjustment Date a Stop-Loss Event has occurred, the Stop-Loss Reference Price [●] [As specified

in Table 1 in the Annex to the Issue Specific Terms]

Reference Rate [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Reference Rate for the Reference Currency minus

Reference Rate for the Base Currency]

Reference Rate for the Base Cur-

rency

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Rate for the Reference

Currency

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Reference Rate Screen Page

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

Reference Rate Screen Page for the Base Currency [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

Reference Rate Screen Page for the Reference Currency

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [Not applicable]

Stop-Loss Barrier

The Stop-Loss Barrier on the Strike Date is [•][specified in Table 1 in the Annex to the Issue Specific Terms]. The Stop-Loss Barrier will be regularly adjusted pursuant to Section 11 of the General Conditions.

Adjustment of Stop-Loss Barrier

Rounding [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Stop-Loss Barrier Rounding Amount

[•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Yes

Stop-Loss Price

Stop-Loss Buffer

Strike The Strike on the Strike Date is [•][specified in Table 1 in the

Annex to the Issue Specific Terms]. The Strike will be regularly adjusted pursuant to Section 8 of the General Conditions.

Adjustment of Strike

Strike Date •

Strike Rounding Amount [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Yes

#### Product No. 15. Product specific terms applicable to Down & Out Put Warrants

Settlement Amount

[In the case of Down & Out Put Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price falls short of the Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Strike – Reference Price) x Multiplier [x Participation Factor].]

[In the case of Down & Out Put Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the Performance of the Underlying multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = [Nominal][Calculation Amount] x Performance of the Underlying [x Participation Factor].]

The Settlement Amount is at least zero (0).

[Calculation Amount] [•]

Initial Reference Price [•] [As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

Knock-Out Barrier [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms

No

Adjustment of Knock-Out Bar-

rier

Knock-Out Event [Touch][Break]

Knock-Out Price 

•

Knock-Out Settlement Amount zero (0)

[Multiplier] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Adjustment of Multiplier] [No][Not applicable]

[Nominal] [•]

Observation Date •

Observation Hours [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [ • ] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Performance of the Underlying] [[Amount by which the Reference Price falls below the Strike

whereby the result will be divided by the Initial Reference

Price [•]]

Strike [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Strike No

Reference Price

[Underlying Price on the Final Valuation Date] [•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Termination Right in the case of [Applicable][Not applicable] the occurrence of a Knock-Out

Event

# Product No. 16. Product specific terms applicable to Up & Out Call Warrants

Settlement Amount

[In the case of Up & Out Call Warrants with Multiplier and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the amount by which the Reference Price exceeds the Strike, multiplied by the Multiplier [and by the Participation Factor], i.e.

Settlement Amount = (Reference Price – Strike) x Multiplier [x Participation Factor].]

[In the case of Up & Out Call Warrants with Nominal and/or Calculation Amount and Cash Settlement the following provision applies:

The Settlement Amount equals, subject to the occurrence of a Knock-Out Event pursuant to Section 6 of the General Conditions, the Performance of the Underlying multiplied by the [Nominal][Calculation Amount] [and by the Participation Factor]. Accordingly the Settlement Amount will be calculated as follows:

Settlement Amount = [Nominal][Calculation Amount] x Performance of the Underlying [x Participation Factor].]

The Settlement Amount is at least zero (0).

[Calculation Amount]

 $[\bullet]$ 

**Initial Reference Price** 

[•] [As specified in Table [1][2] in the Annex to the Issue Specific Terms]

**Knock-Out Barrier** 

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms]

Adjustment of Knock-Out Bar-

No

rier

**Knock-Out Event** [Touch][Break]

**Knock-Out Price** 

Knock-Out Settlement Amount zero (0)

[Multiplier] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

[Adjustment of Multiplier] [No][Not applicable]

[Nominal] [•]

Observation Date 

•

Observation Hours [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Observation Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

[Participation Factor] [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Performance of the Underlying [[Amount by which the Strike falls below the Reference Price

whereby the result will be divided by the Initial Reference

Price] [•]]

Strike [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms]

Adjustment of Strike No

Reference Price [Underlying Price on the Final Valuation Date] [•] [As speci-

fied in Table 1 in the Annex to the Issue Specific Terms]

Termination Right in the case of [Applicable][Not applicable]

the occurrence of a Knock-Out

**Event** 

#### Part B - General terms

# Terms in relation to Security Right, Status, Guarantee, Definitions (Section 1 of the General Conditions)

Settlement [Cash][Physical][Cash or Physical]

Currency Conversion [Applicable] [Not applicable] [As specified in Table 1 in the

Annex to the Issue Specific Terms]

Aggregation [Applicable][Not applicable][Aggregation does not apply]

Fractional Cash Amount [•][Not applicable]

Exchange Rate [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Exchange Rate Sponsor [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Final Valuation Date [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Initial Valuation Date [●]

Physical Delivery Amount [●][Not applicable]

Physical Delivery Unit [•] [[Nominal][Calculation Amount] (converted into the Ref-

erence Currency on the basis of the Exchange Rate as published by the Exchange Rate Sponsor on the Final Valuation Date)

divided by the Strike] [Not applicable]

Reference Currency [•][As specified in Table [1][2] in the Annex to the Issue Spe-

cific Terms]

Relevant Exchange Date [•][Not applicable][As specified in Table 1 in the Annex to the

Issue Specific Terms]

Settlement Amount Rounding [●][Not applicable]

Settlement Currency [•][As specified in Table 1 in the Annex to the Issue Specific

Terms]

Settlement Date [•][[Third (3<sup>rd</sup>)][Fifth (5<sup>th</sup>)][•] Payment Date following (a) [the

Final Valuation Date][the last occurring Valuation Date] or (b)

the Termination Date

Valuation Date [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Date of Programme Agreement [●][Not applicable]

Date of Agency Agreement [●][Not applicable]

Date of Deed of Covenant [•][Not applicable]

Italian Listed Securities [Applicable][Not applicable]

## Terms in relation to Exercise (Section 2 of the General Conditions)

Automatic Exercise [Applicable][Not applicable]

Renouncement Notice Cut-Off [•]

Time

[•][Not applicable]

Bermuda Exercise Dates [•][Not applicable]

Business Day [●]

Minimum Exercise Amount [●][Not applicable]

Integral Exercise Amount [•][Not applicable]

Maximum Exercise Amount [●][Not applicable]

Exercise Period [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Exercise Style [insert in the case of Securities with a limited term: [European

Exercise Style][American Exercise Style]][insert in the case of Securities with an unlimited term: [American Exercise

Style][Bermudan Exercise Style]]

Exercise Time [●][(local time ●)][Not applicable]

ICSD Prescribed Time [●][Not applicable]

Local Exercise Time [•][Not applicable]

# Terms in relation to Settlement (Section 3 of the General Conditions)

Clearing System [Clearstream Banking AG, Frankfurt am Main, Mergenthal-

erallee 61, 65760 Eschborn, Germany][Euroclear Bank SA/NV, 1 Boulevard du Roi Albert II, B-1210 Brussels, and/or Clearstream Banking, société anonyme, 42 Avenue JF Kennedy, L-1855 Luxembourg] [Euroclear Finland Oy, the Finnish Central Securities Depository Ltd., Urho Kekkosen katu 5 C, 00100 Helsinki, Finland] [Euroclear Sweden AB, the Swedish Central Securities Depositary, Klarabergsviadukten 63, Stockholm, 11164, Sweden][Nederlands Central Instituut voor Giraal Effectenverkeer B.V., the Dutch Central Securities Depositary, Herengracht 459, 1017BS Amsterdam, the Netherlands][Verdipapirsentralen ASA, the Norwegian Central Securities Depositary, Biskop Gunnerus'gt 14A, Oslo, 0185, Norway][Euroclear France S.A., the French Central Securities Depositary, 66 Rue de la Victoire, 75009 Paris, France][•]

Disruption Settlement Amount [•]

#### Terms in relation to Coupon (Section 4 of the General Conditions)

Coupon Payment [Not applicable][Applicable, if a Switch Event has

occurred]

Coupon [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [As specified in Part A (Product Specific Terms)]

[•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [As specified in Part A (Product Specific Terms)] [With respect to the Coupon Payment Date immediately following to the Switch Date the Coupon Amount is equal to the [Nominal][Calculation Amount] multiplied by the Coupon and further multiplied by n, whereby "n" means the number of Coupon Payment Dates up to and including the Coupon Payment Date following the Switch Date. With respect to the following Coupon Payment Date(s) the Coupon Amount is equal to the [Nom-

inal][Calculation Amount] multiplied by the Coupon.]

Coupon Cessation Date [•] [As specified in Table 1 in the Annex to the Issue Specific

Terms] [Not applicable]

Coupon Day Count Fraction [Actual/Actual (ICMA)] [Actual/365] [Actual/Actual (ISDA)] [Actual/365 (Fixed)] [Actual/360] [30/360] [360/360] [Bond

Basis] [30E/360] [Eurobond Basis] [1/1] [Not applicable]

Coupon Period [Applicable][Not applicable][●]

Coupon Payment Date(s) [•] [As specified in Table 1 in the Annex to the Issue Specific Terms] [If the Coupon Payment Date falls on a date which is not a Payment Date, then the Security Holder shall

[in the case of Following Business Day Convention insert: not be entitled to payment until the next such Payment Date in the relevant place] [in the case of Modified Following Business Day Convention insert: not be entitled to payment until the next such Payment Date in the relevant place unless it would thereby fall into the next calendar month in which event the payment shall be made on the immediately preceding Payment Date [if the Coupon Payment Date is not subject to adjustment in accordance with any Business Day Convention, insert: The Security Holder shall not be entitled to further interest or other payment in respect of such delay nor, as the case may be, shall the amount of interest to be paid be reduced due to such deferment.] [if the Coupon Payment Date is subject to adjustment in accordance with the Following Business Day Convention or the Modified Following Business Day Convention, insert: The Security Holder is entitled to further coupon payments for each additional day the scheduled Coupon Payment Date is

Coupon Amount

postponed.] [if the Coupon Payment Date is subject to adjustment in accordance with the Modified Following Business Day Convention, insert: However, in the event that the Coupon Payment Date is brought forward to the immediately preceding Payment Date, the Security Holder will only be entitled to interest until the actual Coupon Payment Date and not until the scheduled Coupon Payment Date.]

Interest Commencement Date

[•][Not applicable]

#### Terms in relation to Barrier Event (Section 5 of the General Conditions)

[Definitions relating to the Barrier Event are set out in the Product specific terms above][Not applicable]

## Terms in relation to Knock-Out Event (Section 6 of the General Conditions)

[Definitions relating to the Knock-Out Event are set out in the Product specific terms above][Not applicable]

# Terms in relation to Stop-Loss Event (Section 7 of the General Conditions)

[Definitions relating to the Stop-Loss Event are set out in the Product specific terms above][Not applicable]

#### Terms in relation to Adjustment of Strike (Section 8 of the General Conditions)

[Definitions relating to the Adjustment of Strike are set out in the Product specific terms above][Not applicable]

## Terms in relation to Adjustment of Multiplier (Section 9 of the General Conditions)

[Definitions relating to the Adjustment of Multiplier are set out in the Product specific terms above][Not applicable]

# Terms in relation to Adjustment of Knock-Out Barrier (Section 10 of the General Conditions)

[Definitions relating to the Adjustment of Knock-Out Barrier are set out in the Product specific terms above][Not applicable]

#### Terms in relation to Adjustment of Stop-Loss Barrier (Section 11 of the General Conditions)

[Definitions relating to the Adjustment of Stop-Loss Barrier are set out in the Product specific terms above][Not applicable]

Terms in relation to Ordinary Termination Right of the Issuer, Termination Right following a Change in Law Event (Section 12 of the General Conditions)

Ordinary Termination Right of the

Issuer

[Applicable][Not applicable]

[Optional Redemption Date]

an ordinary termination]

[Termination Amount in the case of [insert Termination Amount in the case of an ordinary termination allocated to the respective Optional Redemption

*Date:* • ]

 $[\bullet]$ 

[Termination Notice Date]  $[\bullet]$ 

[Termination Notice Time Span] [One month][●]

[Termination Period] [•]

Terms in relation to Transferability, Security Holder (Section 13 of the General Conditions)

Minimum Trading Number [•] [(corresponding to • Securities)]

Permitted Trading Multiple [Not applicable] [•]

Terms in relation to Agents (Section 14 of the General Conditions)

Calculation Agent [Goldman Sachs International, Plumtree Court, 25 Shoe

Lane, London EC4A 4AU, United Kingdom][●]

Principal Programme Agent [Goldman Sachs Bank Europe SE, Marienturm, Taunusan-

lage 9-10, 60329 Frankfurt am Main, Germany][●]

Fiscal Agent [Citibank Europe plc, 1 North Wall Quay, Dublin 1, Ire-

land][●] [Not applicable]

[Citigroup Global Markets Europe AG, Reuterweg 16, Registrar

60323 Frankfurt am Main, Germany][Not applicable][●]

[Norwegian Paying Agent] [Skandinaviska Enskilda Banken AB (publ), Oslo Branch,

Filipstad Brygge 1, NO-0252 Oslo, Norway][●][Not appli-

cable]

[Finnish Paying Agent] [Skandinaviska Enskilda Banken AB (publ), Helsinki

Branch, Eteläesplanadi 18FI-00130 Helsinki, Fin-

land][•][Not applicable]

[Swedish Paying Agent] [Skandinaviska Enskilda Banken AB (publ),

Kungsträdgårdsgatan 8, AS-12, SE-106 40 Stockholm,

Sweden][•][Not applicable]

[Dutch Paying Agent] [Citibank Europe plc, 1 North Wall Quay, Dublin 1, Ire-

land][●][Not applicable]

[French Paying Agent] [●][Not applicable]

Additional Agent(s) [insert additional paying agent, if applicable: ●]

Terms in relation to Notices (Section 17 of the General Conditions)

Website [●]

Terms in relation to Modifications (Section 18 of the General Conditions)

Securities Exchange [●][Not applicable]

Terms in relation to Governing Law, Place of Jurisdiction, Process Agent (Section 19 of the General Conditions)

Securities [German Securities] [English Securities]

[Nordic Registered Securities] [Euroclear Finland Registered Securities] [Euroclear Swe-

den Registered Securities] [VPS Registered Securities] [Not

applicable]

[Euroclear Netherlands Registered

Securities]

[Applicable] [Not applicable]

[Euroclear France Registered Secu-

rities]

[Applicable] [Not applicable]

Governing Law [German Law] [English Law] [, subject to Section 19 (3) of

the General Conditions]

## Terms in relation to Share Linked Provisions (Annex to General Conditions - Share Linked Provisions)

[Not applicable]

Exchange Traded Fund][Share Basket] [•]

Name of [Share(s)] [share of an [insert name of Share(s) or Depositary Receipt or share of

Exchange Traded Fund]

an Exchange Traded Fund: •] [As specified in Table [1] [and] [2] in the Annex to the Issue Specific Terms] [([Bloomberg Code: •] [ISIN: •] [Reuters Code: •] )] [([each] the ["Share"] [or] ["Depositary Receipt"] ["Share of an Exchange Traded Fund"] or [the "Underlying"] [the "Basket Component"])] [insert information relating to weighting of basket component: •] [insert information relating to relati

[Applicable - as specified in Share Linked Provision 1.2]

relating to relevant Exchange Traded Fund: ●]

[Share Issuer] [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Exchange(s) [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Related Exchange(s) [●]

Options Exchange [•]

Calculation Date [•]

Calculation Hours [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Underlying Price [●]

Valuation Time [●]

and

Scheduled Reference Date(s) [Final Valuation Date] [•]

Single Share and Reference Dates - [Applicable - as specified in Share Linked Provision 1.1]

Consequences of Disrupted Days [Not applicable]

Maximum Days of Disruption [•] [Not applicable]

Averaging

No Adjustment [Not applicable] [Applicable]

Reference Dates - Consequences of [Not applicable]

Disrupted Days

Share

Single

Omission [Not applicable] [Applicable]

Postponement [Not applicable] [Applicable]

Modified Postponement [Not applicable] [Applicable]

Maximum Days of Disruption [•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Share Basket and Reference Dates -[Applicable - as specified in Share Linked Provision **Basket** Valuation (Individual 1.3][Not applicable] Scheduled **Trading** Day and

Individual Disrupted Day)

Maximum Days of Disruption [•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Basket and Averaging Reference Dates – Basket Valuation (Individual Scheduled Trading Day

and Individual Disrupted Day)

[Applicable - as specified in Share Linked Provision

1.4][Not applicable]

Omission [Not applicable] [Applicable]

Postponement [Not applicable] [Applicable]

[Not applicable] [Applicable] Modified Postponement

Maximum Days of Disruption [•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Share Basket and Reference Dates -Basket Valuation (Common

Scheduled **Trading** Day but

Individual Disrupted Day)

[Applicable - as specified in Share Linked Provision

1.5][Not applicable]

Maximum Days of Disruption [•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Share Basket and Reference Dates –

Basket Valuation (Common Day Scheduled **Trading** and

Common Disrupted Day)

[Applicable - as specified in Share Linked Provision

1.6][Not applicable]

Maximum Days of Disruption [•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Fallback Valuation Date [Not applicable] [•]

Change in Law [Applicable] [Not applicable]

**Hedging Disruption** [Applicable] [Not applicable]

**Increased Cost of Hedging** [Applicable] [Not applicable]

Illiquidity Event [Applicable] [Not applicable]

**Insolvency Filing** [Applicable] [Not applicable] Failure to Deliver [Applicable] [Not applicable]

Extraordinary Event - Share [Applicable] [Not applicable] [●]

Substitution

Correction of Underlying Price [Not applicable] [Applicable]

Correction Cut-off Date [Not applicable] [●]

Depositary Receipts Provisions [Not applicable] [Applicable]

Depositary Receipts [•]

Underlying Shares [●]

Underlying Share Issuer [●]

Exchange(s) in respect of  $[\bullet]$ 

**Underlying Shares** 

Related Exchange(s) in respect [•] [All Exchanges]

of Underlying Shares

Valuation Time in respect of [●]

**Underlying Shares** 

Dividend Amount Provisions [Not applicable] [Applicable]

Dividend Amount [Record Amount] [Ex Amount] [Paid Amount] [•]

Dividend Period(s) [●]

Dividend Payment Date(s) [●]

Gross Cash Dividend [Excludes Extraordinary Dividends as specified in Share

Linked Provision 8 (Definitions)][Includes Extraordinary

Dividends1

Extraordinary Dividends [•]]

Terms in relation to Index Linked Provisions (Annex to General Conditions - Index Linked Provisions)

[Not applicable]

[Single Index or Index Basket] [Single Index][Index Basket]

Name of Index(ices): ● [Insert name of Index(ices): ● [As specified in Table [1]]

[and] [2] in the Annex to the Issue Specific Terms] [([ISIN:

•] [Bloomberg Code(s): •] [Reuters Code: •])] [([each] the

"Index" or [the "Underlying"][the "Basket"]

Component"])] [insert information relating to weighting of

*basket component:* ●

Exchange(s) [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Related Exchange(s) [Not applicable][All Exchanges] [●]

Options Exchange [Not applicable] [Related Exchange] [●]

Calculation Date [●]

Calculation Hours [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Index Sponsor [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Underlying Price [●]

Valuation Time [As specified in Index Linked Provision 8] [●]

Scheduled Reference Date(s) [Final Valuation Date] [●]

Index-Linked Derivatives Contract [Not applicable][Applicable]

**Provisions** 

Index-Linked Derivatives [●]

Contract

Derivatives Exchange [●]

Single Index and Reference Dates -Consequences of Disrupted Days [Applicable - as specified in Index Linked Provision 1.1][Applicable only if the Reference Price is the Final Index Level, in which case, as specified in Index Linked

[Applicable - as specified in Index Linked Provision

Provision 1.1][Not applicable]

Maximum Days of

Disruption

[•] [Not applicable]

No Adjustment [Not applicable] [Applicable]

Single Index and Averaging Reference Dates - Consequences of

1.2][Not applicable]

Disrupted Days

Omission [Not applicable] [Applicable]

Postponement [Not applicable] [Applicable]

Modified Postponement [Not applicable] [Applicable]

Maximum Days of

[•] [Not applicable]

Disruption

No Adjustment [Not applicable] [Applicable]

Index Basket and Reference Dates – [Applicable - as specified in Index Linked Provision

Basket Valuation (Individual 1.3][Not applicable]

Scheduled **Trading** Day and Individual Disrupted Day)

Maximum Days of

[•] [Not applicable]

Disruption

No Adjustment [Not applicable][Applicable]

**Basket** Index and Averaging Reference Dates – Basket Valuation (Individual Scheduled Trading Day and Individual Disrupted Day)

[Applicable - as specified in Index Linked Provision

[Applicable - as specified in Index Linked Provision

[Applicable - as specified in Index Linked Provision

1.4][Not applicable]

Omission [Not applicable][Applicable]

Postponement [Not applicable][Applicable]

Modified Postponement [Not applicable] [Applicable]

Maximum Days of [•] [Not applicable]

Disruption

No Adjustment [Not applicable] [Applicable]

**Basket** Valuation (Common 1.5][Not applicable]

Scheduled **Trading** Day but

Index Basket and Reference Dates -

Individual Disrupted Day)

Maximum Days of [•] [Not applicable]

Disruption

No Adjustment [Not applicable][Applicable]

Index Basket and Reference Dates – Basket Valuation (Common

Scheduled **Trading** Day and

Common Disrupted Day)

1.6][Not applicable]

Maximum Days of [•] [Not applicable]

Disruption

No Adjustment [Not applicable] [Applicable]

Fallback Valuation Date [Not applicable] [•]

Change in Law [Applicable][Not applicable]

[Applicable][Not applicable] **Hedging Disruption** 

**Increased Cost of Hedging** [Applicable][Not applicable]

Correction of Underlying Price [Not applicable] [Applicable] Correction Cut-off Date [Not applicable] [•]

Dividend Amount Provisions [Not applicable] [Applicable]

Dividend Period(s) [●]

Gross Cash Dividend [Excludes Extraordinary Dividends as specified in Index

Linked Provision 8 (Definitions)][Includes Extraordinary

Dividends].]

Terms in relation to FX Linked Provisions (Annex to General Conditions - FX Linked Provisions)

[Not applicable]

[Single Currency Pair or Currency [Single Currency Pair] [Currency Pair Basket]

Pair Basket

Currency Pair(s) [insert name of Currency Pair(s): •] [As specified in Table

[1] [and] [2] in the Annex to the Issue Specific Terms] [([ISIN: •] [Bloomberg Code(s): •][Reuters Code: •])] [([each] the "Currency Pair" or [the "Underlying"][the "Basket Component"])] [insert information relating to

weighting of basket component: ●]

Base Currency [•] [As specified in Table [1][2] in the Annex to the Issue

Specific Terms]

Calculation Date [Publication Calculation Date] [Transaction Calculation

Date]

Calculation Hours [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms

Underlying Price •

Fixing Price Sponsor [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Screen Page [Bloomberg Page: ●] [Reuters Screen: ●] [As specified in

Table 2 in the Annex to the Issue Specific Terms]

Valuation Time •

Scheduled Reference Date(s) [Final Valuation Date] [●]

Single Currency Pair and Reference [Ap

Dates - Consequences of Non-

**Calculation Dates** 

 $[Applicable-as\ specified\ in\ FX\ Linked\ Provision\ 1.1]\ [Not$ 

applicable]

Maximum Days of [Applicable - as specified in FX Linked Provision 4] [●]

Postponement [Not applicable]

No Adjustment [Not applicable] [Applicable]

Single Currency Pair and Averaging [Applicable - as specified in FX Linked Provision 1.2] [Not

Reference Dates - Consequences of applicable]

Non-Calculation Dates

Omission [Not applicable] [Applicable]

Postponement [Not applicable] [Applicable]

Modified Postponement [Not applicable] [Applicable]

Maximum Days of [As specified in FX Linked Provision 4] [●] [Not

Postponement applicable]

No Adjustment [Not applicable] [Applicable]

Currency Pair Basket and Reference [Applicable - as specified in FX Linked Provision 1.3] [Not

Dates – Individual Calculation Date applicable]

Maximum Days of [As defined in FX Linked Provision 4] [•] [Not applicable]

Postponement

No Adjustment [Not applicable] [Applicable]

Currency Pair Basket and [Applicable - as specified in FX Linked Provision 1.4] [Not

Averaging Reference Dates – applicable]

Individual Calculation Date

Omission [Not applicable] [Applicable]

Postponement [Not applicable] [Applicable]

Modified Postponement [Not applicable] [Applicable]

Maximum Days of [As defined in FX Linked Provision 4] [•] [Not applicable]

Postponement

No Adjustment [Not applicable] [Applicable]

Currency Pair Basket and Reference [Applicable - as specified in FX Linked Provision 1.5] [Not

Dates – Common Calculation Date applicable]

Maximum Days of [As defined in FX Linked Provision 4] [●] [Not applicable]

Postponement

No Adjustment [Not applicable] [Applicable]]

## Terms in relation to Commodity Linked Provisions (Annex to General Conditions - Commodity Linked Provisions)

[Not applicable]

[Commodity Linked Securities [Applicable] [Not applicable]

(Single Commodity or Commodity

Basket)

Single Commodity or Commodity [Single Commodity] [Commodity Basket]

Basket

[insert name of Commodity(ies): ●] [As specified in Table Name of Commodity(ies)

> [1] [and] [2] in the Annex to the Issue Specific Terms] [([ISIN: •][Bloomberg Code(s): •][Reuters Code: •])] [([each] the "Commodity" or [the "Underlying"][the "Basket Component"])] [insert information relating to

*weighting of basket component:* •]

[•] [As specified in Table 2 in the Annex to the Issue Spe-Commodity Reference Price(s)

cific Terms]

Trading Facility(ies) [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

 $[\bullet]$ **Underlying Price** 

[ullet]Calculation Date

**Calculation Hours** [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Scheduled Reference Date(s) [Final Valuation Date] [•]

Unit (s) [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

[•] [As specified in Table 2 in the Annex to the Issue Delivery Date(s)

Specific Terms] [[First][Second][Third] [•] [Nearby]

Month]

Specified Price(s) [High price] [Low price] [average of high and low price]

> [closing price] [opening price] [bid price] [ask price] [average of bid and ask price] [settlement price] [Official settlement price [official price] [morning fixing] [afternoon

fixing [spot price] [•]

Page(s)

Price Source(s) / Relevant Screen [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Price Materiality Percentage (in [Not applicable ] [●] respect of Price Source Disruption) Single Commodity and Reference [Applicable – as specified in Commodity Linked Provision Dates – Consequences of Disrupted 1.1 - the ordinal number in brackets specifies the order in Days which such Disruption Fallbacks shall apply] [Not applicable] Calculation Agent [Not applicable] [applicable – [to be applied Determination [first][second][third][fourth]]] [Concurrent with [•]] Delayed Publication or [Not applicable] [Applicable – [to be applied Announcement [first][second][third][fourth]]] [Concurrent with [•]] Fallback Reference Dealers [Not applicable] [Applicable – [to be applied [first][second][third][fourth]]] [Concurrent with [•]] Reference Dealers (for purpose  $[\bullet]$ "Commodity Reference Dealers") Fallback Reference Price [Not applicable] [Applicable – [to be applied [first][second][third][fourth]]] [Concurrent with [•]] alternate Commodity Reference  $[\bullet]$ Price Postponement [Not applicable] [Applicable – [to be applied [first][second][third][fourth]]] [Concurrent with [•]] [As specified in Commodity Linked Provision 10] [•] Maximum Days of Disruption No Adjustment [Not applicable] [Applicable] Commodity Basket and Reference [Applicable – as specified in Commodity Linked Provision **Basket** Valuation 1.2 - the ordinal number in brackets specifies the order in Dates (Individual Scheduled Commodity which such Disruption Fallbacks shall apply] [Not Business Day and Individual applicable] Disrupted Day) Calculation Agent [Not applicable] [Applicable [to applied Determination [first][second][third][fourth]]] [Concurrent with [•]] Delayed Publication or applicable] [Applicable – [to be Announcement [first][second][third][fourth]]] [Concurrent with [•]] Fallback Reference Dealers applicable | [Applicable -Not [to be applied [first][second][third][fourth]]] [Concurrent with [•]] Reference Dealers for purpose of  $[\bullet]$ "Commodity Reference Dealers"

Fallback Reference Price [Not applicable] [Applicable – [to be [first][second][third][fourth]]] [Concurrent with [•]] alternate Commodity Reference Price Postponement [Not applicable] [applicable applied [to be [first][second][third][fourth]]] [Concurrent with [•]] Maximum Days of Disruption [As specified in Commodity Linked Provision 10] [•] No Adjustment [Not applicable] [Applicable] Commodity Basket and Reference [Applicable – as specified in Commodity Linked Provision Dates – Basket Valuation (Common 1.3 - the ordinal number in brackets specifies the order in Scheduled Commodity Business which such Disruption Fallbacks shall apply] [Not Day but Individual Disrupted Day) applicable] Calculation Agent Not applicable] [Applicable [to applied Determination [first][second][third][fourth]]] [Concurrent with [•]] Delayed Publication or applicable | [Applicable – [first][second][third][fourth]]] [Concurrent with [•]] Announcement Fallback Reference Dealers [Not applicable | [Applicable -[to be applied [first][second][third][fourth]]] [Concurrent with [•]] Reference Dealers for purpose of [ullet]"Commodity Reference Dealers" Fallback Reference Price applicable] [Applicable – [to be applied [Not [first][second][third][fourth]]] [Concurrent with [•]] alternate Commodity Reference  $[\bullet]$ Price Postponement [Not applicable] [Applicable [to applied [first][second][third][fourth]]] [Concurrent with [•]] Maximum Days of Disruption [As specified in Commodity Linked Provision 10] [•] No Adjustment [Not applicable] [Applicable] Commodity Basket and Reference [Applicable – as specified in Commodity Linked Provision Dates - Basket Valuation (Common 1.3 - the ordinal number in brackets specifies the order in Scheduled Commodity Business which such Disruption Fallbacks shall apply] [Not Day and Common Disrupted Day) applicable] [As specified in Commodity Linked Provision 10] [•] Maximum Days of Disruption

Linked Provision 3]

Commodity

No Adjustment

of

Correction

Reference Price

[Not applicable] [Applicable]

[Not applicable] [Applicable – as specified in Commodity

Hedging Disruption [Applicable] [Not applicable]

Increased Cost of Hedging [Applicable] [Not applicable]

Correction Cut-off Date [Not applicable] [●]
Fallback Valuation Date [Not applicable] [●]

Commodity Linked Securities [Applicable] [Not applicable]

(Commodity Index)

Name of Commodity Index [Name of Commodity Index: ●] [As specified in Table [1]

[and] [2] in the Annex to the Issue Specific Terms] [([ISIN: ●][Bloomberg Code(s): ●][Reuters Code: ●])] [([each] the "Commodity Index" or [the "Underlying"][the "Basket Component"])] [insert information relating to weighting of

basket component: ●]

Commodity Index Sponsor [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Calculation Date [•]

Calculation Hours [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Scheduled Reference Date(s) [Final Valuation Date] [●]

Underlying Price •

Relevant Screen Page [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Maximum Days of Disruption [As defined in Commodity Linked Provision 10] [●]

Hedging Disruption [Applicable][Not applicable]

Increased Cost of Hedging [Applicable][Not applicable]]

# Terms in relation to Futures Contract Linked Provisions (Annex to General Conditions – Futures Contract Linked Provisions)

[Not applicable]

[Single Futures Contract or Futures [Single Futures Contract] [Futures Basket]

**Basket** 

Name of Futures Contract(s): ● [insert name of Futures Contract(s): ●] [As specified in

Table [1] [and] [2] in the Annex to the Issue Specific Terms]
[([ISIN: •] [Bloomberg Code(s): •][Reuters Code: •])]
[([each] the "Futures Contract" or [the "Underlying"][the
"Basket Component"])] [insert information relating to

*weighting of basket component:* •]

Trading Facility(ies) [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Underlying Price [●]

Calculation Date [●]

Calculation Hours [•] [As specified in Table 2 in the Annex to the Issue Spe-

cific Terms]

Scheduled Reference Date(s) [Final Valuation Date] [●]

Rolling Futures Provisions [Not applicable] [Applicable]

Rollover Date [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Relevant Month [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Transaction Fee [•] [As specified in Table 2 in the Annex to the Issue

Specific Terms]

Rollover Price [•]

Single Futures Contract and Reference Dates – Consequences

of Disrupted Days

[Applicable – as specified in Futures Contract Linked Provision 1.1 [- the ordinal number in brackets specifies the order in which such Disruption Fallbacks shall apply]] [Not

applicable]

Calculation Agent [Not

Determination

[Not applicable] [applicable [- to be applied

[first][second][third][fourth]]] [Concurrent with [•]]

Postponement [Not applicable] [Applicable [- to be applied

[first][second][third][fourth]]] [Concurrent with [•]]

Maximum Days of Disruption [As specified in Futures Contract Linked Provision 8] [•]

No Adjustment [Not applicable] [Applicable]

Futures Basket and Reference

Dates – Basket Valuation

(Individual Scheduled Futures

Business Day and Individual

[Applicable – as specified in Futures Contract Linked Provision 1.2 [- the ordinal number in brackets specifies the order in which such Disruption Fallbacks shall apply]] [Not applicable]

Disrupted Day)

Calculation Agent

[Not applicable] [Applicable – [to be applied

Determination [first][second][third][fourth]]] [Concurrent with [•]]

Postponement [Not applicable] [Applicable [- to be applied

[first][second][third][fourth]]] [Concurrent with [•]]

Maximum Days of Disruption [As specified in Futures Contract Linked Provision 8] [●]

No Adjustment [Not applicable] [Applicable]

Futures Basket and Reference

Dates – Basket Valuation

(Common Scheduled Futures

Business Day but Individual

[Applicable – as specified in Futures Contract Linked Provision 1.3 [- the ordinal number in brackets specifies the order in which such Disruption Fallbacks shall apply]] [Not applicable]

Disrupted Day)

Calculation Agent [Not applicable] [Applicable [- to be applied

Determination [first][second][third][fourth]]] [Concurrent with [●]]

Postponement [Not applicable] [Applicable – [to be applied

[first][second][third][fourth]]] [Concurrent with [•]]

Maximum Days of Disruption: [As specified in Futures Contract Linked Provision 8] [•]

No Adjustment [Not applicable] [Applicable]

Futures Basket and Reference
Dates – Basket Valuation
(Common Scheduled Futures
Business Day and Common

[Applicable – as specified in Futures Contract Linked Provision 1.4 [- the ordinal number in brackets specifies the order in which such Disruption Fallbacks shall apply]] [Not

applicable]

Disrupted Day)

Maximum Days of Disruption: [As specified in Futures Contract Linked Provision 8] [●]

No Adjustment: [Not applicable] [Applicable]

Correction of Underlying Price [Not applicable] [Applicable – as specified in Futures

Contract Linked Provision 3]

Hedging Disruption [Applicable] [Not applicable]

Increased Cost of Hedging [Applicable] [Not applicable]

Change in Law [Applicable] [Not applicable]

Correction Cut-off Date [Not applicable] [●]

Fallback Valuation Date [Not applicable] [•]]

## Annex to the Issue Specific Terms

Table 1

[WKN]	[Underly-	[Multiplier]	[Bonus	[Barrier]	[Minimum	[Coupon]	[Initial	[Initial	[Initial In-	[Currency	[Final Val-
[ISIN]	ing]	[Strike]	Amount]	[Observa-	Amount]	[Reference	Manage-	Knock-Out	terest Mar-	Conver-	uation Datel
[Valor] [Common Code] [additional Securities Identification Number: •]		[Strike] [Strike Rounding Amount] [Multiplier Rounding Amount] [Initial Reference Price] [Reference Price] [Base Currency] [Reference Currency] [Settlement Currency]	[Bonus Level] [Cap] [Maximum Amount] [Reverse	tion Period] [Observation Hours] [Stop-Loss Barrier] [Stop-Loss Barrier Rounding Amount] [Stop-Loss Buffer]	[Participation Factor]	[Reference Rate] [Coupon Amount] [Coupon Payment Date(s)] [Coupon Cessation Date]	ment Fee] [Maximum Manage- ment Fee] [Initial Quanto Fee] [Final In- stalment Amount] [Final In- stalment Date] [Initial In- stalment Amount] [Initial In- stalment Amount]	Buffer] [Maximum Knock-Out Buffer] [Knock- Out Barrier] [Knock- Out Settlement Amount Rounding] [Initial Roll Over Spread] [Maximum Roll Over Spread]	gin] [Maximum Interest Margin] [Reference Rate for the Base Currency] [Reference Rate for the Reference Currency] [Reference Rate Screen Page] [Reference Rate Screen Page] [Reference	sion] [Exchange Rate] [Exchange Rate Sponsor]	Date] [Valuation Date] [Exercise Period]

## V. FORM OF ISSUE SPECIFIC TERMS

[•]	[•]	[•]	[•]	[•]	[•]	[•]	[•]	[•]	[•]	[•]	[•]
								Rounding Amount]			
								Out Barrier	20110)]		
								[Knock-	ence Cur- rency]		
								[Lever]	the Refer-		
								Rounding]	Page for		
								Value	Screen		
								[Intrinsic	Rate		
								Buffer]	[Reference		
								Stop-Loss	Currency]		
								[Maximum	the Base		

Table 2

[Name of Share(s)]	[ISIN]	[Share Issuer]	[Base Currency]	[Commodity Reference	[Transaction Fee]
[Name of Depositary Receipt] [Name of Share of an Exchange Traded Fund] [Name of Index(ices)] [Currency Pair(s)] [Name of Com- modity(ies)] [Name of Futures Contract(s)]	[Bloomberg Code(s)] [Reuters Code] [[Relevant] Screen Page]	[Index Sponsor] [Commodity Index Sponsor] [Exchange(s)] [Trading Facility(ies)] [Fixing Price Sponsor] [Calculation Hours]	[Reference Currency]	Price(s)] [Unit(s)] [Price Source / Relevant Screen Page(s)] [Name of Commodity Index]	[Rollover Date] [Delivery Date(s)] [Relevant Month] [Initial Reference Price]
[•]	[•]	[•]	[•]	[•]	[●]

## VI. GUARANTEE

by TH	GUARANTEE is made on 3 February 2023 IE GOLDMAN SACHS GROUP, INC., a ration duly organized under the laws of the of Delaware (the "Guarantor").	DIESE GARANTIE wurde am 3. Februar 2023 von THE GOLDMAN SACHS GROUP, INC., eine nach dem Recht des US-Bundesstaates Delaware ordnungsgemäß bestehende Gesellschaft (die "Garantin") gewährt.			
WHEI	REAS	VORBEMERKUNGEN			
(A)	Goldman, Sachs & Co. Wertpapier GmbH ("GSW" or the "Issuer") has established a programme (the "Programme") for the issuance of securities (the "Securities") in connection with which it has prepared a prospectus dated 3 February 2023 (the "Prospectus", which expression shall include any supplements thereto).	(A) Die Goldman, Sachs & Co. Wertpapier GmbH ("GSW" oder die "Emittentin") hat ein Programm für die Emission von Wertpapieren (die "Wertpapiere") aufgelegt (das "Emissionsprogramm") und in diesem Zusammenhang einen Prospekt vom 3. Februar 2023 erstellt (der "Prospekt", wobei dieser Begriff auch alle Nachträge zu dem ursprünglichen Prospekt umfasst).			
(B)	From time to time, the Issuer may issue Tranches of Securities under the Programme subject to the terms and conditions described in the Prospectus.	(B) Die Emittentin ist berechtigt, aufgrund des Emissionsprogramms zu den in dem Prospekt dargelegten Bedingungen zu unterschiedlichen Zeitpunkten Tranchen von Wertpapieren zu begeben.			
(C)	The Guarantor has determined to execute this Guarantee of the payment obligations of the Issuer in respect of the Securities issued by the Issuer under the Programme. For the avoidance of doubt, it is hereby clarified that this Guarantee is not a guarantee upon first demand ( <i>keine Garantie auf erstes Anfordern</i> ).	(C) Die Garantin gewährt diese Garantie als Sicherheit für sämtliche Zahlungsverpflichtungen, die der Emittentin in Zusammenhang mit den von ihr im Rahmen des Emissionsprogramms begebenen Wertpapieren entstehen. Zur Klarstellung wird darauf hingewiesen, dass es sich bei dieser Garantie um keine Garantie auf erstes Anfordern handelt.			
THE	GUARANTOR hereby agrees as follows:	DIE GARANTIN verpflichtet sich hiermit wie folgt:			
1.	The Guarantor hereby provides a unconditional and irrevocable guarantee vis-àvis the holders of the individual Securities issued by the Issuer under the Programme, now or at any point in time after the date of this Guarantee (each a	1. Die Garantin übernimmt hiermit gegen- über den Inhabern der einzelnen Wertpa- piere, die jetzt oder zu irgendeinem Zeit- punkt nach dem Datum dieser Garantie von der Emittentin im Rahmen des Emis- sionsprogramms begeben werden			

"Security Holder"), for the payment of any settlement amounts as well as any other payments, to be made with respect to a Security pursuant to the terms and conditions of the Securities, namely at the maturities determined by the terms and conditions of the Securities, if the Issuer fails to meet its corresponding payment obligations in connection with the Securities.

(jeweils ein "Wertpapierinhaber"), die unbedingte und unwiderrufliche Garantie für die Leistung aller Tilgungsbeträge sowie von jeglichen sonstigen Zahlungen, die gemäß den Bedingungen der Wertpapiere auf ein Wertpapier zahlbar sind, und zwar zu den in den Bedingungen der Wertpapiere bestimmten Fälligkeiten, falls die Emittentin ihren entsprechenden Zahlungsverpflichtungen im Zusammenhang mit den Wertpapieren nicht nachkommt.

- 2. This Guarantee establishes an unconditional, irrevocable, unsecured and unsubordinated obligation of the Guarantor, ranking *pari passu* with all other unsecured and unsubordinated obligations of the Guarantor existing from time to time, subject to obligations with prior ranking pursuant to statutory law.
- 2. Diese Garantie begründet eine nicht besicherte und nicht nachrangige Verbindlichkeit der Garantin, die mit allen anderen jeweils bestehenden, nicht besicherten und nicht nachrangigen Verbindlichkeiten der Garantin gleichrangig ist mit Ausnahme von Verbindlichkeiten, die nach geltenden Rechtsvorschriften vorrangig sind.
- 3. The obligations of the Guarantor pursuant to this Guarantee (i) are autonomous and independent from the obligations of the Issuer under the Securities, (ii) exist independently from the legality, validity, bindingness or enforceability of the Securities and (iii) are not affected by events, conditions or circumstances of factual or legal nature, except for the complete, final and irrevocable fulfilment of all payment obligations agreed to under the Securities.
- 3. Die Verpflichtungen der Garantin aus dieser Garantie (i) sind selbstständig und unabhängig von den Verpflichtungen der Emittentin aus den Wertpapieren, (ii) bestehen unabhängig von der Rechtmäßigkeit, Gültigkeit, Verbindlichkeit oder Durchsetzbarkeit der Wertpapiere und (iii) werden nicht durch Ereignisse, Bedingungen oder Umstände tatsächlicher oder rechtlicher Art berührt, außer durch die vollständige, endgültige und unwiderrufliche Erfüllung sämtlicher in den Wertpapieren eingegangenen Zahlungsverpflichtungen.
- 4. This Guarantee and any arrangements contained herein are an agreement for the benefit of the Security Holders as third-party beneficiaries (*begünstigte Dritte*) pursuant to section 328 para. 1 BGB. They establish the right of each Security Holder to demand performance of the
- 4. Diese Garantie und alle darin enthaltenen Vereinbarungen sind ein Vertrag zugunsten der Wertpapierinhaber als begünstigte Dritte gemäß § 328 Abs. 1 BGB. Sie begründen das Recht eines jeden Wertpapierinhabers, die Erfüllung der hierin eingegangenen Verpflichtungen unmittelbar

obligations agreed to herein directly from the Guarantor and to enforce such obligations directly against the Guarantor.

In case of a non-fulfilment of payments under the Securities on the part of the Issuer, a Security Holder is able to institute an action directly against the Guarantor to enforce this Guarantee, without having to initiate any prior proceedings against the Issuer.

von der Garantin zu fordern und diese Verpflichtungen unmittelbar gegenüber der Garantin durchzusetzen.

Ein Wertpapierinhaber kann im Falle der Nichterfüllung von Zahlungen auf die Wertpapiere durch die Emittentin zur Durchsetzung dieser Garantie unmittelbar gegen die Garantin Klage erheben, ohne dass zunächst ein Verfahren gegen die Emittentin eingeleitet werden müsste.

- 5. Upon any assignment or delegation of the Issuer's rights and obligations under the Securities pursuant to the terms and conditions of the Securities to a partnership, corporation or other organization in whatever form and not identical to the Guarantor (the "Substitute") that assumes the obligations of such Issuer under the Securities by contract, operation of law or otherwise, this Guarantee shall remain in full force and effect and thereafter be construed as if each reference herein to the Issuer were a reference to the Substitute.
- 5. Im Falle einer Abtretung oder sonstigen Übertragung der Rechte und Pflichten der Emittentin aus den Wertpapieren gemäß den für die Wertpapiere geltenden Bedingungen auf eine nicht mit der Garantin identische neue Personen- oder Kapitalgesellschaft, ein Sondervermögen oder sonstigen Rechtsträger "Rechtsnachfolgerin"), die, das bzw. der aufgrund vertraglicher Absprachen, gesetzlicher Bestimmungen oder auf einer anderen Rechtsgrundlage in die in Zusammenhang mit den Wertpapieren bestehenden Verpflichtungen der Emittentin eintritt, bleibt diese Garantie uneingeschränkt bestehen und wirksam und ist ab dem Zeitpunkt dieses Übergangs so zu lesen und zu verstehen, dass mit jeder Bezugnahme auf die Emittentin stets deren Rechtsnachfolgerin gemeint ist.
- 6. The Guarantor may not assign its rights nor delegate its obligations under this Guarantee in whole or in part, except for (i) an assignment and delegation of all of the Guarantor's rights and obligation hereunder to another entity in whatever form that succeeds to all or substantially all of the Guarantor's assets and business and that assumes such obligations by contract, operations of law or otherwise; (ii) a transfer of this Guarantee or any
- 6. Die Garantin ist nicht berechtigt, ihre Rechte oder Pflichten aus dieser Garantie ganz oder teilweise abzutreten oder auf einen Dritten zu übertragen, sofern (i) es sich nicht um eine Abtretung oder Übertragung sämtlicher Rechte und Pflichten der Garantin aus dieser Garantie handelt, die gegenüber einer Person vorgenommen wird, die das Vermögen und den Geschäftsbetrieb der Garantin insgesamt bzw. im Wesentlichen übernimmt und

interest or obligation of the Guarantor in or under this Guarantee to another entity as transferee as part of the resolution, restructuring, or reorganization of the Guarantor upon or following the Guarantor becoming subject to a receivership, insolvency, liquidation, resolution, or similar proceeding. Upon any such delegation and assumption of obligations or transfer of the Guarantee, the Guarantor shall be relieved of and fully discharged from all obligations hereunder.

aufgrund vertraglicher Absprachen, gesetzlicher Bestimmungen oder auf einer anderen Rechtsgrundlage in die entsprechenden Verpflichtungen eintritt; (ii) eine Übertragung dieser Garantie oder einer Rechtsposition oder einer Verpflichtung der Garantin unter oder aus dieser Garantie auf eine andere Einheit als Empfänger als Bestandteil einer Abwicklung, Umstrukturierung oder Neuorganisation der Garantin erfolgt, soweit oder nach dem die Garantin einer Zwangsvollstreckung, Insolvenz, Auflösung, Abwicklung oder einem ähnlichen Verfahren unterworfen wird. Im Falle einer solchen Abtretung und Übernahme der Verpflichtungen der Garantin aus dieser Garantie oder einer Übertragung der Garantie, wird die Garantin aus ihren sämtlichen Verpflichtungen aus dieser Garantie vollumfänglich entlassen und freigestellt.

- 7. In the event the Guarantor becomes subject to a proceeding under the Federal Deposit Insurance Act or Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together, the "U.S. Special Resolution Regimes"), the transfer of the Guarantee and any interest and obligation in or under the Guarantee, from the Guarantor will be effective to the same extent as the transfer would be effective under such U.S. Special Resolution Regimes notwithstanding the jurisdiction in which any Security Holder is domiciled or located or the fact that the governing law of the Securities are the laws of a jurisdiction other than the laws of the United States or a state of the United States. In the event an Issuer or the Guarantor, or any of their affiliates, becomes subject to a proceeding under a U.S. Special Resolution Regimes, default rights against the Issuer or the Guarantor
- 7. Für den Fall, dass die Garantin einem Verfahren nach dem Bundeseinlagensicherungsgesetz (Federal Deposit Insurance Act) oder nach Titel II des Dodd Frank Reform- und Verbraucherschutzgesetz (Dodd Frank Wall Street Reform and Consumer Protection Act) (zusammen das "U.S. Special Resolution Regimes") unterworfen wird, wird die Übertragung der Garantie und die Übertragung jeglicher Rechtspositionen oder Verpflichtungen der Garantin unter oder aus der Garantie im selben Umfang wirksam, wie es die Übertragung nach dem U.S. Special Resolution Regimes wäre, ungeachtet dessen, in welcher Jurisdiktion die Wertpapierinhaber ansässig sind oder sich befinden oder der Tatsache, dass das anwendbare Recht der Wertpapiere dem Recht einer Jurisdiktion abweichend von dem Recht der Vereinigten Staaten von Amerika oder eines Staates

and the Guarantee are permitted to be exercised to no greater extent than such default rights could be exercised under such U.S. Special Resolution Regimes notwithstanding the jurisdiction in which any Security Holder is domiciled or located or the fact that the governing law of the Securities are the laws of a jurisdiction other than the laws of the United States or a state of the United States. The term "default right" as used in this paragraph 7 has the meaning assigned to that term under 12 C.F.R. 252.81 of the U.S. Code of Federal Regulations.

der Vereinigten Staaten von Amerika unterliegt. Für den Fall, dass die Emittentin oder die Garantin oder eines ihrer verbundenen Unternehmen einem Verfahren nach dem U.S. Special Resolution Regimes unterworfen wird, dürfen Rechte im Zusammenhang mit dem Zahlungsausfall gegen die Emittentin oder die Garantin in keinem größeren Umfang ausgeübt werden, als Rechte im Zusammenhang mit dem Zahlungsausfall nach dem U.S. Special Resolution Regimes ausgeübt werden dürften, ungeachtet dessen, in welcher Jurisdiktion die Wertpapierinhaber ansässig sind oder sich befinden oder der Tatsache, dass das anwendbare Recht der Wertpapiere dem Recht einer Jurisdiktion unterliegt, welches von dem Recht der Vereinigten Staaten von Amerika oder eines Staates der Vereinigten Staaten von Amerika abweicht. Der Begriff "Rechte im Zusammenhang mit dem Zahlungsausfall", wie in diesem Absatz 7 verwendet, hat die Bedeutung, die diesem Begriff unter 12 C.F.R. 252.81 des U.S. Code of Federal Regulations zugewiesen ist.

- 8. Terms used but not defined herein shall have the meanings ascribed to them in the terms and conditions of the Securities.
- 8. Die hierin verwendeten und nicht anders definierten Begriffe haben die ihnen in den Bedingungen der Wertpapiere zugewiesene Bedeutung.
- 9. This Guarantee is governed by, and to be construed in accordance with, German law. The place of performance (*Erfüllungsort*) and non-exclusive place of jurisdiction (*nicht ausschließlicher Gerichtsstand*) is Frankfurt am Main.
- 9. Diese Garantie unterliegt dem Recht der Bundesrepublik Deutschland und ist entsprechend auszulegen. Erfüllungsort und nicht ausschließlicher Gerichtsstand ist Frankfurt am Main.
- 10. This Guarantee is prepared in the German language and accompanied by a translation into the English language. Only the German text is binding and authoritative.
- 10. Diese Garantie ist in deutscher Sprache abgefasst und mit einer Übersetzung in die englische Sprache versehen. Allein der deutsche Text ist verbindlich und

allein maßgeblich.

## GOLDMAN SACHS GROUP, INC.

	By / durch:
-	Name:
	Date / Datum:
	(authorised representative / zeichnungsberechtigter Vertreter)

## GOLDMAN, SACHS & CO. WERTPAPIER GMBH

By / durch:	By / durch:
Name:	Name:
Date / Datum:	Date / Datum:
(authorised representative / zeichnungsberechtigter Vertreter)	(authorised representative / zeichnungs- berechtigter Vertreter)

## VII. IMPORTANT INFORMATION ABOUT THE ISSUER

With respect to the required information about Goldman, Sachs & Co. Wertpapier GmbH as Issuer of the Securities, reference is made pursuant to Article 19 paragraph 1 of the Prospectus Regulation to the Registration Document of Goldman, Sachs & Co. Wertpapier GmbH dated 2 June 2022 (the "GSW Registration Document") which has been approved by BaFin, the first supplement dated 11 October 2022 to the GSW Registration Document (the "First Supplement to the GSW Registration Document") as well as to the unaudited interim financial statements of Goldman, Sachs & Co. Wertpapier GmbH for the period ended 30 June 2022 (the "GSW Half Year Report 2022"), the audited annual report of GSW for the year ended 31 December 2021 (the "GSW Annual Report 2021") and the audited annual report of GSW for the year ended 31 December 2020 (the "GSW Annual Report 2020"), from which information is incorporated by reference into this Base Prospectus (detailed information regarding the pages in the GSW Registration Document, the First Supplement to the GSW Registration Document, the GSW Half Year Report 2022, the GSW Annual Report 2021 and the GSW Annual Report 2020 to which reference is made with respect to the required information about the Issuer, can be found in section "XII. General Information" under "6. Information incorporated by reference").

## VIII. IMPORTANT INFORMATION ABOUT THE GUARANTOR

With respect to the information about The Goldman Sachs Group, Inc.as Guarantor of the Securities, reference is made pursuant to Article 19 paragraph 1 of the Prospectus Regulation to the following documents that are approved by and filed with the CSSF:

- Base Prospectus Euro Medium-Term Notes, Series F dated 15 April 2022 ("GSG Base Prospectus")
- Supplement No. 5 to the Base Prospectus Euro Medium-Term Notes, Series F dated 3 November 2022 ("Supplement No. 5 to the GSG Base Prospectus")

(detailed information regarding the pages in the documents set out above, to which reference is made with respect to the required information about the Guarantor, can be found in section "XII. General Information" under "6. Information incorporated by reference").

The Guarantor files documents and reports with the US Securities and Exchange Commission (the "SEC"). With respect to further substantial information in respect of The Goldman Sachs Group, Inc. as the Guarantor of the Securities reference is made pursuant to Article 19 paragraph 1 of the Prospectus Regulation to the following documents filed with the SEC (the "SEC Documents") which are also filed with the CSSF and to which reference is made in the GSG Base Prospectus and the Supplement No. 5 to the GSG Base Prospectus (detailed information regarding the pages in the SEC Documents, to which reference is made with respect to the required information about the Guarantor, can be found in section "XII. General Information" under "6. Information incorporated by reference"):

- the Annual Report on Form 10-K for the fiscal year ended 31 December 2021 (the "Form 10-K 2021", containing financial statements relating to the fiscal years ended 31 December 2021 and 31 December 2020, which includes Exhibit 21.1 thereto), filed with the SEC on 25 February 2022;
- the current Proxy Statement relating to the Annual Meeting of Shareholders on 28 April 2022 (the "**Proxy Statement 2022**"), filed with the SEC on 18 March 2022;
- the Quarterly Report on Form 10-Q for the fiscal quarter ended 30 September 2022 (the "Form 10-Q Third Quarter 2022"), filed with the SEC on 3 November 2022 and
- the Report on Form 8-K dated 17 January 2023 (the "Form 8-K 17 January 2023"), filed with the SEC on 17 January 2023.

#### IX. FORM OF FINAL TERMS

In the case of a continuation of the offer of a Series of Securities already issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 the relevant information in Section VIII. Form of Final Terms of the Securities Note dated 8 July 2020 and/or the relevant information in Section VIII. Form of Final Terms of the Securities Note dated 10 February 2021 and/or the relevant information in Section IX. Form of Final Terms of the Base Prospectus dated 9 February 2022 which are incorporated by reference into this Base Prospectus (see Section "XII.6. Information incorporated by reference") will apply.

## **Final Terms dated**

[insert in the case of an increase of the Series: (relating to [insert Securities: •] (the "[First][•] Increase", which are consolidated with the outstanding [insert designation of the Securities: •] ([WKN •][•]) issued on [insert date of the first issue: •] [insert additional issue, if applicable: •] under [the Base Prospectus [consisting of separate documents] for Securities (issued in the form of Certificates, Notes or Warrants) dated [8 July 2020] [10 February 2021] [9 February 2022]] [the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 3 February 2023] and constitute a single issue)]

## GOLDMAN, SACHS & CO. WERTPAPIER GMBH

Frankfurt am Main, Germany
(Issuer)

[Issue Size to be inserted: ●]

[Name of the Securities to be integrated: •]

[Securities][Warrants]

[(issued in the form of [Certificates][Notes][Warrants])]

[linked to

[**•**]]

[ISIN: ●]

[WKN: ●]

[Valor: •]

[Common Code: ●]

[Additional Securities Identification Number: •]

[Issue Price: •]

[insert table with name of Underlying, ISIN, WKN, Valor, Common Code as well as additional Securities Identification Number and Issue Price where applicable: ●]

unconditionally guaranteed by

## The Goldman Sachs Group, Inc.

**United States of America** 

(Guarantor)

Goldman Sachs Bank Europe SE

(Offeror)

These Final Terms relate to the Base Prospectus dated 3 February 2023 ([as supplemented by the Supplement[s] dated ● and] as [further] supplemented from time to time).

[In case of Securities for which a continued public offer is intended following the expiry of the validity of the Base Prospectus dated 3 February 2023 insert: The validity of the Base Prospectus dated 3 February 2023 (the "Initial Base Prospectus") under which the public offer for the Securities described in these Final Terms was initiated, expires on 6 February 2024 in accordance with Art. 12 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 as amended from time to time (the "Prospectus Regulation"). Following this date, the public offer will be continued in [Germany] [,][and] [Austria] [,][and] [Liechtenstein] [,][and] [Luxembourg] [and] [The Netherlands] ] [,][and] [France] [and] [Belgium] on the basis of one or more succeeding base prospectuses (each a "Succeeding Base Prospectus") in accordance with Art. 8 (11) Prospectus Regulation, to the extent the Succeeding Base Prospectus envisages a continuation of the public offer of the Securities. In this context, these Final Terms are, in each case, to be read in conjunction with the most recent Succeeding Base Prospectus. The respective Succeeding Base Prospectus will be approved and published prior to the expiry of the validity of the respective preceding base prospectus. The respective Succeeding Base Prospectus will be published electronically on the website[s] [[www.gs.de/en]]●] (see [www.gs.de/en/services/documents/base-prospectus][●]) [for investors in Germany]] [and/or] [[gsmarkets.at][●] (see www.gsmarkets.at/en/services/documents/base-prospectus [●]) [for investors in Austria]] [and/or] [www.goldman-sachs.ch (see [•]) for investors in Switzerland] [and/or] [www.gspip.info (see www.gspip.info/issuer-details/base-prospectus) for investors in [Liechtenstein] [and] [Luxembourg]] [and/or] [www.gsmarkets.nl (see [•]) [for investors in The Netherlands]] [,][and][and/or] [www.gsmarkets.fr (see [•]) [for investors in France]] [,][and][and/or] [www.gsmarkets.be (see [•]) [for investors in Belgium]] [and/or] [on the respective product site (retrievable by entering the relevant securities identification number for the Security in the search field)].]

[In case of Securities for which a continued public offer in Switzerland is intended following the expiry of the validity of the Base Prospectus dated 3 February 2023 insert: The immediately preceding paragraph shall also apply mutatis mutandis to the continued public offering in Switzerland pursuant to the provisions of the Swiss Federal Act on Financial Services ("Financial Services Act"; "FIDLEG"). The respective Succeeding Base Prospectus will be published electronically on the website www.goldman-sachs.ch.]

The subject of the Final Terms are [•] (Product No. [•] in the Base Prospectus— [[Securities] [with [Multiplier][Nominal][Calculation Amount]] [,][and] [with [potential physical settlement][cash settlement]] [,][and] [[with][without] coupon payment(s)] [,][and] [with [European][American] Exercise Style] [,][and] [[with][without] [different] Participation Factor[s]]]) [linked to [•] (categorised as [a][an] [Basket of] [Share[s]][Securities representing Shares (Depositary Receipt)] [Index][Indices] [Foreign Exchange Rate[s]] [Commodity][Commodities] [Futures Contract[s]] in the Base Prospectus)] (the "Securities" [or the "Warrants"]), which are issued by Goldman, Sachs & Co. Wertpapier GmbH, Frankfurt am Main, Federal Republic of Germany, (the "Issuer").

[in the case of an increase of issue size of Securities issued under this Base Prospectus, insert: The [insert number: •] Securities [(corresponding to an aggregate nominal amount of [•])] together with the [insert number: •] Securities [(corresponding to an aggregate nominal amount of [•])] with the securities identification number [WKN •][•], issued under the Final Terms dated [insert date: •] (the "First Final Terms") [insert additional issue where appropriate: •] to the Base Prospectus dated 3 February 2023 as supplemented from time to time, form a single issue within the meaning of Section 16 of the General Conditions, i.e. they have the same [WKN][•] and [− with the exception of their number −] the same features (referred to together as the "Securities" [or the "Warrants"]).]

[in the case of an increase of issue size of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022, insert: The [insert number: •] Securities [(corresponding to an aggregate nominal amount of [•])] together with the [insert number: •] Securities [(corresponding to an aggregate nominal amount of [●])] with the securities identification number [WKN ●][●], issued under the Final Terms dated [insert date: •] (the "First Final Terms") [insert additional issue where appropriate: •] to the Base Prospectus [consisting of separate documents] for Securities (issued in the form of Certificates, Notes or Warrants) dated [8 July 2020][10 February 2021][9 February 2022] as supplemented from time to time (the "First Base Prospectus"), form a single issue within the meaning of Section 16 of the General Conditions, i.e. they have the same [WKN][•] and [- with the exception of their number –] the same features (referred to together as the "Securities" [or the "Warrants"]). The First Base Prospectus and the First Final Terms [insert additional final terms where appropriate: •] and any notices which have been published since the original issue date of the Securities with the securities identification number [WKN ●][●] are published on the website[s] [[www.gs.de/en][●] (see [www.gs.de/en/services/documents/base-prospectus] [and/or] [https://www.gs.de/en/services/documents/product-final-terms][•]) [for investors in Germany]] [and/or] [[gsmarkets.at]] •] (see [https://www.gsmarkets.at/en/services/documents/base-prospectus] [and/or] [https://www.gsmarkets.at/en/services/documents/product-final-terms] [●]) [for investors in Austria]] [and/or] [www.goldman-sachs.ch (see [●]) for investors in Switzerland] [and/or] [www.gspip.info (see www.gspip.info/issuer-details/base-prospectus) for investors in [Liechtenstein] [and] [Luxembourg]] [and/or] [www.gsmarkets.nl (see [•]) [for investors in The Netherlands]] [,][and][and/or] [www.gsmarkets.fr (see [●]) [for investors

in France]] [,][and][and/or] [www.gsmarkets.be (see [•]) [for investors in Belgium]] [and/or] [the respective product site (retrievable by entering the relevant securities identification number for the Security in the search field)].]

These Final Terms have been prepared for the purpose of Article 8 (4) of the Prospectus Regulation and must be read in conjunction with the Base Prospectus dated 3 February 2023 (as supplemented from time to time).

Full information on the Issuer, the Guarantor and the offer of the Securities is only available on the basis of the combination of these Final Terms and the Base Prospectus (as supplemented from time to time).

The Final Terms, the Base Prospectus and any supplements thereto are published in electronic form on the website[s] [[www.gs.de/en **][•]** (see [www.gs.de/en/services/documents/base-prospectus] [and/or] [https://www.gs.de/en/services/documents/product-final-terms] [●]) [for investors in [and/or] [[gsmarkets.at][•] [Germany]][ and [[Austria]]] (see [https://www.gsmarkets.at/en/services/documents/base-prospectus] [and/or] [https://www.gsmarkets.at/en/services/documents/product-final-terms] [●]) [for investors in Austria] [and/or] [www.goldman-sachs.ch (see [•]) for investors in Switzerland] [and/or] [www.gspip.info (see www.gspip.info/issuer-details/base-prospectus) for investors in [Liechtenstein] [and] [Luxembourg]] [and/or] [www.gsmarkets.nl (see [●]) [for investors in [The Netherlands]] [, [and [and/or] [www.gsmarkets.fr (see [•]) [for investors in [France]] [, [and] [and/or] [and] [www.gsmarkets.be (see [•]) [for investors in Belgium]] [and/or] [the respective product site (retrievable by entering the relevant securities identification number for the Security in the search field) [and] [insert website of financial intermediaries placing or selling the securities: •].

An issue-specific summary with the key information for the Securities is annexed to these Final Terms.

[Insert the following additional language in case of an offer in Switzerland: The Securities do not constitute a collective investment scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes ("CISA"). The Securities are neither subject to the authorisation nor to the supervision by the Swiss Financial Market Supervisory Authority FINMA and investors do not benefit from the specific investor protection provided under the CISA. Investors should be aware that they are exposed to the credit risk of the Issuer and the Guarantor respectively.]

[Insert in case of a public offering in Switzerland requiring a prospectus: These Final Terms must be read together with the Base Prospectus, which was included as a foreign prospectus, which is deemed approved also in Switzerland pursuant to Article 54 para. 2 of the Swiss Federal Act on Financial Services ("Financial Services Act"; "FinSA") in the list of approved prospectuses and deposited with the relevant reviewing body (*Prüfstelle*) and published pursuant to Article 64 FinSA. These Final Terms will also be deposited with such reviewing body and published pursuant to Article 64 FinSA.]

## **ISSUE SPECIFIC TERMS**

The following "Issue Specific Terms" of the Securities shall, for the Series of Securities, supplement and complete the General Conditions for the purposes of such Series of Securities.

[Insert Issue Specific Terms applicable to the respective Series of Securities as contained in Section "V. Form of Issue Specific Terms" of the Base Prospectus]

#### OTHER INFORMATION

### Interest of natural and legal persons involved in the issue/offer

[insert information regarding conflicts of interest, if any, not known at the date of the Base Prospectus: ●]

## Conditions of the offer, Offeror and Issue Date of the Securities

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[Date of the underwriting agreement: [●]]

[Start of offer in Austria: [●]]

[Start of offer in Belgium: [●]]

[Start of offer in France: [●]]

[Start of offer in Germany: [●]]

[Start of offer in Ireland: [●]]

[Start of offer in Liechtenstein: [●]]

[Start of offer in Luxembourg: [●]]

[Start of offer in Norway: [●]]

[Start of offer in the Netherlands: [●]]

[Start of offer in Switzerland: [●]]

[Start of offer in [insert other relevant offer jurisdiction(s), if any: ●]: [●]]

Issue Date: [●]
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[The Subscription Period begins on [●] and ends on [●]. [The minimum/maximum amount of the subscription amounts to [●].] The Issuer reserves the right to terminate the Subscription Period early for any reason whatsoever. [Furthermore the Issuer is entitled to extent the Subscription Period.] [The Issuer is not required to accept subscription orders. Partial allocations are possible (particularly in the case of oversubscription). The Issuer is not required to issue subscribed Securities. [Particularly if [insert conditions under which the Issuer will not issue the Securities: ●], the Issuer will not issue the Securities.] If the Subscription Period is early terminated [or extended] or if no issuance occurs, the Issuer will publish a corresponding notice on [insert form of publication: ●]].]

[Insert in case of a public offer in Switzerland requiring a prospectus where a withdrawal right pursuant to article 63 para 5 FinSO is granted: Swiss Withdrawal Right pursuant to Article 63 para 5 FinSO

If an obligation to prepare a supplement to the Base Prospectus pursuant to Article 56 para 1 of the Swiss Financial Services Act ("**Financial Services Act**", "**FinSA**") is triggered during the Subscription Period, subscriptions may be withdrawn within two days of publication of the supplement.]

#### Listing and Trading

[Regulated] [and] [Unregulated] market of [Frankfurt Stock Exchange][,][and] [Stuttgart Stock Exchange][,][and] [Luxembourg Stock Exchange] [Insert other exchange(s) or multilateral trading facilities: •]] [An admission to trading or listing of the Securities is not intended].

#### Issue Price, Fees and Commissions

The Issue Price [is [●]] [of the respective Security is as follows: [insert table: ●]].

[insert details on the type and amount of fees and/or commissions paid by the Issuer to third parties, as the case may be:  $\bullet$ ]

[Insert in the case of Securities with coupon payment: [Accrued interest is included in the purchase price of the Securities (so-called "dirty pricing").] [Accrued interest is not included in the purchase price of the Securities and will be charged separately (so-called "clean pricing").]]

### Non-exempt offer in the European Economic Area (EEA) [and Switzerland]

[Not applicable.] [In respect of offering in the European Economic Area (EEA) [and Switzerland], an offer of the Securities may be made within the scope of the consent to use the prospectus granted below by the offeror [and/or each further credit institution subsequently reselling or finally placing Securities] other than pursuant to Article 1 of the Prospectus Regulation in [Austria][,] [and] [Belgium][,] [and] [Bulgaria][,] [and] [the Czech Republic][,] [and] [Denmark][,] [and] [Finland][,] [and] [France][,] [and] [Germany][,] [and] [Hungary][,] [and] [Ireland][,] [and] [Italy][,] [and] [Liechtenstein][,] [and] [Luxembourg][,] [and] [The Netherlands][,] [and] [Norway][,] [and] [Poland][,] [and] [Portugal][,] [and] [Slovakia][,] [and] [Spain][,] [and] [Sweden] [and] [Switzerland] (the "Offer State(s)") during the period from[, and including] [the start of the offer in the respective Offer State] [insert date: •] [to[, and including,] [insert date: •][the expiring of the validity of the Base Prospectus pursuant to Article 12 of the Prospectus Regulation (6 February 2024)]] [[and/or] [expectedly] [to a termination of the Products by the Issuer] [insert other information related to the offering period: •] (the "Offer Period")] [insert further/other details in relation to non-exempt offer: •]

## Consent to use of Prospectus

[Not applicable.] [insert in the case of a general consent: The Issuer consents to the use of the Base Prospectus and these Final Terms by all financial intermediaries (general consent). General consent for the subsequent resale or final placement of Securities by the financial intermediaries is given in relation to the Offer State(s) during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus [(and/or Succeeding Base Prospectus)] is still valid according to Article 12 of the Prospectus Regulation. [In the case of an Offer Period which exceeds the duration of the validity of the Base Prospectus, the subsequent resale and final placement of the Securities by financial intermediaries can be made during the period in which a Succeeding Base Prospectus exists. In this case, the consent to the use of the Base Prospectus also applies to the use of the Succeeding Base Prospectus.]]

[insert in the case of an individual consent if the specified financial intermediaries shall be entitled to use the prospectus in all Offer States: The Issuer consents to the use of the Base Prospectus and these Final Terms by the following financial intermediaries (individual consent): [insert name and address of specific intermediary: •]. Individual consent for the subsequent resale or final placement of Securities by the specified financial intermediaries is given in relation to the Offer State(s) during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus [(and/or Succeeding Base Prospectus)] is still valid according to Article 12 of the Prospectus Regulation. [In

the case of an Offer Period which exceeds the duration of the validity of the Base Prospectus, the subsequent resale and final placement of the Securities by financial intermediaries can be made during the period in which a Succeeding Base Prospectus exists. In this case, the consent to the use of the Base Prospectus also applies to the use of the Succeeding Base Prospectus.] Any new information with respect to financial intermediaries unknown at the time of the approval of the Base Prospectus or the filing of the Final Terms will be published on the website [www.gs.de/en/services/documents/announcements] [www.gsmarkets.at/en/services/documents/announcements] [www.gsmarkets.at/en/services/documents/announcements] [www.gsmarkets.fr/fr/services/documents/announces]

[www.gsmarkets.be/nl/over-ons/documenten/aankondigingen] [www.gspip.info][•].]

[insert in the case of an individual consent if the specified financial intermediaries shall be entitled to use the prospectus in selected Offer States only: The Issuer consents to the use of the Base Prospectus and these Final Terms by the financial intermediaries set out in the table below (individual consent) for the subsequent resale or final placement of Securities in relation to such Offer State(s) as selected in the table below during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus [(and/or Succeeding Base Prospectus)] is still valid according to Article 12 of the Prospectus Regulation. [In the case of an Offer Period which exceeds the duration of the validity of the Base Prospectus, the subsequent resale and final placement of the Securities by financial intermediaries can be made during the period in which a Succeeding Base Prospectus exists. In this case, the consent to the use of the Base Prospectus also applies to the use of the Succeeding Base Prospectus.]

Name and address of financial intermediary

Selected Offer State[s]

[•]

[•]

Any new information with respect to financial intermediaries unknown at the time of the approval of the Base Prospectus or the filing of the Final Terms will be published on the website [www.gs.de/en/services/documents/announcements] [www.gsmarkets.at/en/services/documents/announcements] [www.gsmarkets.nl/nl/over-ons/documenten/aankondigingen] [www.gsmarkets.fr/fr/services/documents/announces]

[www.gsmarkets.be/nl/over-ons/documenten/aankondigingen][www.gspip.info][•].]

[Further, such consent is subject to and given under the condition [•].]

[Insert in the case of a public offering in Switzerland if the specified financial intermediaries shall be entitled to use the prospectus in Switzerland: The Issuer consents to the use of the Base Prospectus and these Final Terms by the following financial intermediaries: [insert name and address of specific intermediary(ies): •]. Consent for the subsequent resale or final placement of Securities by the specified financial intermediaries is given in relation to public offerings in Switzerland during the Offer Period during which subsequent resale or final placement of the Securities can be made, provided however, that the Base Prospectus [(and/or Succeeding Base Prospectus)] is still valid according to Article 55 of the FinSA.]

#### Information relating to the Underlying and/or the Basket Component

[The information about the relevant Underlying and/or the Basket Components consists of excerpts and summaries of publicly available sources, which may have been translated into the English language. The Issuer confirms that this information has been accurately reproduced and that – as far as the Issuer is aware and is able to ascertain from publicly available information – no facts have been omitted which would render the reproduced information, which may have been translated into the English language, inaccurate or misleading. Neither the Issuer nor the Offeror accepts any other or further responsibilities in respect of this information. In particular, neither the Issuer nor the Offeror accepts any responsibility for the accuracy of the information in relation to the relevant Underlying and/or the Basket Components or provide any guarantee that no event has occurred which might affect the accuracy or completeness of this information.]

[insert description of the Underlying and/or the Basket Components , as the case may be: ●]

Information about the past and future performance and volatility of the Underlying and/or of the respective Basket Components is [free of charge] [available on the following website(s): ●] [available by the Issuer under ●]. [Insert information if the information can not be obtained free of charge: ●]

[Statement on benchmarks according to Article 29 para. 2 of the Benchmark Regulation

[The Settlement Amount under the Securities may be calculated by reference to [specify benchmark: ●], which is provided by [administrator legal name: ●]]. As at the date of these Final Terms, [[administrator legal name: ●] is [not] included in the register of administrators and benchmarks established and maintained by the European Securities and Markets Authority ("ESMA") pursuant to article 36 of the Regulation (EU) 2016/1011.]

[As far as the Issuer is aware, [[insert benchmark(s): •] [does/do] not fall within the scope of the Regulation (EU) 2016/1011 by virtue of Article 2 of that regulation][the transitional provisions in Article 51 of the Regulation (EU) 2016/1011 apply], such that [insert names(s) of administrator(s): •] [is/are] not currently required to obtain authorisation or registration (or, if located outside the European Union, recognition, endorsement or equivalence)¹.] [insert alternative statement on benchmarks according to Article 29 para. 2 of the Benchmark Regulation, if applicable: •]]

## Publication of post-issuance information

[Except for the notices referred to in the Conditions, the Issuer does not intend to publish any post-issuance information.][*insert different rule*, *if applicable*: ●]

#### [Information in relation to Section 871(m) of the Internal Revenue Code

[The Issuer had determined, and intends to take the position, that the Securities are delta-one Securities that are subject to U.S. withholding tax under these rules. Accordingly, a 30 percent withholding tax will be imposed on each dividend that is paid on the share that is referenced by the Securities (based on the notional amount of corporate stock that is referenced by a holder's Securities), and Goldman Sachs will remit such amount to the Internal Revenue Service. The

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Additional explanatory language where the statement is negative (i.e. the relevant administrator is not in the ESMA register.

withholding tax rate will not take into account any reduced rate to which a Holder maybe entitled under an applicable tax treaty. In addition, a holder of Securities may not receive the necessary information reporting to enable the holder to claim a refund for the excess of the withholding tax over the tax that would be imposed under an applicable treaty. Further information can be found in the Base Prospectus under "United States Tax Considerations – Dividend Equivalent Payments".]

[The U.S. Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a "dividend equivalent" payment that is subject to tax at a rate of 30 per cent. (or a lower rate under an applicable treaty). The Issuer has determined that, as of the issue date of the Securities, the Securities will not be subject to withholding under these rules. In certain limited circumstances, however, it is possible for United States alien holders to be liable for tax under these rules with respect to a combination of transactions treated as having been entered into in connection with each other even when no withholding is required. United States alien holders should consult their tax advisor concerning these regulations, subsequent official guidance and regarding any other possible alternative characterisations of their Securities for United States federal income tax purposes. See "United States Tax Considerations – Dividend Equivalent Payments" in the Base Prospectus for a more comprehensive discussion of the application of Section 871(m) to the Securities.]]

# [EXPLANATION OF MECHANISM OF SECURITIES

[Insert examples in order to explain how the value of the Securities is affected by the value of the Underlying taking into account the explanations given in the Base Prospectus under III.2 (if any)]]

## X. TAXATION

## **Tax Warning**

The tax legislation of the Member State of the investor and of the Member State of incorporation of the Issuer may affect the income generated by the Securities.

Each potential investor should seek advice from a representative of the tax advisory profession with respect to the tax implication of acquiring, holding and selling the Securities.

#### **United States Tax Considerations**

The following is a summary of the principal United States federal income and estate tax consequences to a United States alien holder of Securities. A United States alien holder is a beneficial owner of a Security that is, for United States federal income tax purposes:

- a non-resident alien individual;
- a foreign corporation;
- a foreign partnership; or
- an estate or trust that in either case is not subject to United States federal income tax on a net income basis on income or gain from a Security

that does not hold the Security in connection with the conduct of a trade or business within the United States.

The discussion herein does not apply to any holder of Securities that is not a United States alien holder.

In addition, holders of Securities that directly or indirectly reference the performance of United States equities (including an index or basket that includes United States equities) should consult the discussion below under "Dividend Equivalent Payments" with respect to the possible application of the Section 871(m) withholding tax to the Securities.

A holder of Securities should consult its tax advisor concerning the consequences of owning Securities in its particular circumstances under the U.S. Internal Revenue Code of 1986, as amended (the "Code") and the laws of any other taxing jurisdiction.

Except as described below under "Foreign Account Tax Compliance Withholding", "Dividend Equivalent Payments", and "Information Reporting and Backup Withholding", payments and amounts realised in respect of such Securities will generally not be subject to United States income tax, withholding tax or estate tax.

# Foreign Account Tax Compliance Withholding

FATCA could impose a withholding tax of 30 per cent. on payments on Securities paid to a holder of Securities or any non-U.S. person or entity that receives such income (a "**non-U.S. payee**") on its behalf, unless the holder and each non-U.S. payee in the payment chain complies

with the applicable information reporting, account identification, withholding, certification and other FATCA-related requirements. However, this withholding tax will generally not apply to the Securities unless they are treated as giving rise to "foreign passthru payments" and (i) are issued after the date that is six months after the U.S. Treasury Department issues final regulations defining what constitutes "foreign passthru payments", (ii) lack a stated expiration or term (including, for example, Open End Securities), or (iii) are properly treated as equity for United States federal income tax purposes. In addition, such withholding will not apply to payments made before the date that is two years after the date on which final regulations defining the term "foreign passthru payment" are enacted. There are currently no rules regarding what constitutes a "foreign passthru payment" and there is no guidance as to when the defining regulations would be issued.

In addition, it is possible that the IRS could assert that Securities should be deemed to be wholly or partially reissued for U.S. federal tax purposes if (a) an underlying asset, position, index or basket containing the foregoing, that is referenced by the Securities, is modified, adjusted or discontinued, or (b) there is a substitution of the issuer of the Securities. It is therefore possible that a holder that acquires Securities before the date mentioned under (i) in the immediately preceding paragraph, could nevertheless be subject to FATCA withholding in the future if the IRS successfully asserts that the Securities are deemed to be wholly or partially reissued for U.S. federal income tax purposes after such date.

Even if this withholding tax were to apply to payments on any Securities, in the case of a payee that is a non-U.S. financial institution (for example, a clearing system, custodian, nominee or broker), withholding generally will not be imposed if the financial institution complies with the requirements imposed by FATCA to collect and report (to the U.S. or another relevant taxing authority) substantial information regarding such institution's U.S. account holders (which would include some account holders that are non-U.S. entities but have U.S. owners). Other payees, including individuals, may be required to provide proof of tax residence or waivers of confidentiality laws and/or, in the case of non-U.S. entities, certification or information relating to their U.S. ownership. Under this withholding regime, withholding may be imposed at any point in a chain of payments if the payee is not compliant. A chain may work as follows, for example: The payment is transferred through a paying agent to a clearing system, the clearing system makes a payment to each of the clearing system's participants, and finally the clearing system participant makes a payment to a non-U.S. bank or broker through which a United States alien holder holds the Securities, who credits the payment to the holder's account. Accordingly, if a holder of Securities receives payments through a chain that includes one or more non-U.S. payees, such as a non-U.S. bank or broker, the payment could be subject to withholding if, for example, the non-U.S. bank or broker through which the holder holds the Securities fails to comply with the FATCA requirements and is subject to withholding. This would be the case even if the holder would not otherwise have been directly subject to withholding.

A number of countries have entered into, and other countries are expected to enter into, agreements with the U.S. to facilitate the type of information reporting required under FATCA. While the existence of such agreements will not eliminate the risk that Securities will be subject to the withholding described above, these agreements are expected to reduce the risk of the

withholding for investors in (or investors that indirectly hold Securities through financial institutions in) those countries. The U.S. has entered into such agreements with Germany. Under these agreements, a financial institution that is resident in Germany (as applicable) and meets the requirements of the agreement will not be subject to the withholding described above on payments it receives and generally will not be required to withhold from non-U.S. source income payments that it makes, including payments on the Securities.

The Issuer will not pay any additional amounts in respect of this withholding tax, so if this withholding applies, a holder of Securities will receive less than the amount that it would have otherwise received.

Depending on the circumstances of a holder of Securities, in the event the Issuer is required to withhold any amounts in respect of this withholding tax, a holder may be entitled to a refund or credit in respect of some or all of this withholding. However, even if a holder is entitled to have any such withholding refunded, the required procedures could be cumbersome and significantly delay its receipt of any withheld amounts. Holders of Securities should consult their own tax advisors regarding FATCA. A holder should also consult the bank or broker through which it would hold the Securities about the likelihood that payments to it (for credit to the holder's account) may become subject to withholding in the payment chain.

# **Dividend Equivalent Payments**

Section 871(m) of the Code provides for a 30 per cent, withholding tax (subject to reduction under an applicable treaty) on "dividend equivalents" that are paid to foreign investors with respect to certain financial instruments that reference the performance of United States equity. Under these rules, if a Security that is issued after 1 January 2017 provides for "delta-one" exposure to the performance of shares of a United States corporation, the Issuer will be obligated to impose United States withholding tax in respect of the actual dividends that are paid on the shares of the corporation (or corporations) that are referenced by the Security even if the Issuer does not actually transmit such amounts to a holder of Securities. This tax will also apply if a Security provides for delta-one exposure to an index or basket that includes shares of a United States corporation, unless as discussed below, the index or basket constitutes a "qualified index". If the basket or index is not a "qualified index", the tax will only apply to the dividends on shares of the United States corporations that are included in the index. A Security will generally be treated as providing for a "delta-one" position if it provides for 100 per cent. participation in all of the appreciation and depreciation in the performance of the shares that are referenced by the Security during the term of the Security. The Issuer will state in the Final Terms for a Security that references the performance of an equity, an index or a basket that includes an equity or an index if it has determined that the Security is subject to Section 871(m) withholding tax as of the issue date of the Securities.

If a Security is subject to the Section 871(m) withholding tax described above, each dividend that is paid on a U.S. equity that is referenced by the Security will be subject to a withholding tax at the time that the dividend is paid (or, in certain cases, at the close of the quarter upon which the divided is paid) even though the Issuer will not make any distributions on a Security until the redemption or maturity of the Security. The Issuer will remit the withholding tax to the

IRS and will not reduce the amount that is due under the Security by the amount of the Section 871(m) withholding tax. Rather, the Issuer will be deemed to have paid the amount of the Section 871(m) tax to the holder of the Securities and then paid such amount on its behalf to the IRS.

In the case of Securities are subject to the Section 871(m) tax and that reference the performance of a net dividend index or basket (i.e., an index or basket in which the dividend amount that is included in the index or basket will be reduced by the amount of withholding tax that would be imposed on a direct foreign holder of the United States stocks that are referenced by the Security), the Issuer will not reduce the amount that is due under the Securities by the amount of the Section 871(m) withholding tax because the equivalent withholding tax will be taken into account in computing the value of the net dividend index or basket.

In the case of Securities that are subject to the Section 871(m) tax and that do not reference a net dividend index or basket, the amount that is due under the Securities will be effectively reduced by the amount of the Section 871(m) tax. In some cases the dividend amount that increases the amount payable on the Securities will be reduced by the amount of the Section 871(m) withholding tax, while in other cases the dividend amount that reduces the Strike under the Securities will itself be reduced by the amount of the Section 871(m) withholding tax.

The withholding tax rate that will be used to determine the Section 871(m) withholding tax as well as the net dividend that is included in the index or basket that is referenced by the Security will not take into account any reduced rate to which a holder of Securities may be entitled under an applicable tax treaty. Furthermore, a holder may not receive the necessary information reporting to enable it to claim a refund for the excess of the withholding tax over the tax that would be imposed under an applicable treaty. In addition, a holder may not be able to claim a credit for the payment of the Section 871(m) withholding tax in its resident tax jurisdiction, and a holder therefore should consult a tax advisor in such jurisdiction as to whether it will be able to claim such a credit. The withholding tax that the Issuer collects will completely satisfy a Security holder's Section 871(m) tax liability and therefore no other withholding agent (including any financial intermediaries in the chain of ownership for the Securities) will be obligated to impose any additional Section 871(m) tax with respect to the Securities.

Section 871(m) withholding tax will generally not apply to a Security that references a qualified index even if it is otherwise a "delta-one" Security. A "qualified index" is an index that is passive, diverse, widely used by numerous market participants, and that satisfies a number of technical requirements that are set forth in United States Treasury regulations. Even if an index otherwise constitutes a "qualified index", a Security may not be treated as referencing a "qualified index" with respect to a particular holder of Securities if the holder holds a related short position in one or more of the component securities in the index (other than a short position in the entire index, or a "de minimis" short position with a value of less than 5 per cent. of the value of the long positions in the index). Because of this possibility, custodians and other withholding agents may require a holder of a Security that references a "qualified index" to make representations or certifications regarding the nature of any short positions that it holds with respect to the components of the index, and it is possible that a custodian or other withholding agent will impose the Section 871(m) withholding tax if it does not receive a satisfactory representation or

certification or if it otherwise concludes that the holder may hold a related short position described above.

In addition, a holder of Securities may be subject to Section 871(m) even if it holds a Security that is not a "delta-one" Security under the rules described above if (a) the holder's position under the Security would be "delta-one" when combined with other related positions that are held by the holder or (b) if a principal purpose for the holder's investment in the Security is to avoid the application of Section 871(m), in which case a special Section 871(m) anti-abuse rule could apply to the holder's investment in the Securities. In such a case, a United States alien holder may be liable for Section 871(m) tax in respect of its Securities even when no withholding is required in respect of the Securities.

Furthermore, Securities that are issued on or after 1 January 2025 may be subject to Section 871(m) even if they are not a "delta-one" Security under the rules described above. It is possible that the IRS could assert that a Security that is issued before such date could be deemed to be reissued for tax purposes after 1 January 2025 upon (a) a rebalancing or adjustment of the asset, position, index or basket that is referenced by the Security or (b) a substitution of the issuer of a Security. In such a case, a Security that is originally issued before 1 January 2025 and is not "delta-one" (and is thus originally not subject to Section 871(m)) could be subject to Section 871(m) after the deemed reissuance.

In addition, while certain payments on the Securities may be exempt from FATCA withholding (as described above under "Foreign Account Tax Compliance Withholding"), any payments on the Securities that are subject to the Section 871(m) withholding tax will generally also be subject to FATCA withholding if an investor or intermediary does not comply with the applicable FATCA certification and identification requirements.

The application of Section 871(m) to the Securities is complex, and there may be uncertainties regarding the application of Section 871(m) to the Securities. A United States alien holder should consult its tax advisor about the application of Section 871(m) to the Securities.

It has to be noted that according to a circular IV B 5-S 1301-USA/07/10005 dated 23 December 2016 of the German Federal Ministry of Finance with respect to dividend equivalent payments pursuant to Section 871(m) of the Internal Revenue Code, US-withholding tax on dividend equivalent payments is not creditable against German income tax of an investor. In the absence of a crediting, a double taxation of the investor might arise.

The Issuer will indicate in the section "Information in relation to Section 871(m) of the Internal Revenue Code" under "Other information" in the applicable Final Terms whether, in the opinion of the Issuer, the Securities are subject to Section 871(m) of the Internal Revenue Code.

# Information Reporting and Backup Withholding

Payment of the proceeds from the sale of Securities effected at a United States office of a broker will not be subject to backup withholding and information reporting provided that:

- (i) the broker does not have actual knowledge or reason to know that the holder is a United States person and it has furnished to the broker:
  - (a) an appropriate IRS Form W-8 or an acceptable substitute form certifying, under penalties of perjury, that it is not a United States person; or
  - (b) other documentation upon which the broker may rely to treat the payment as made to a person who is not a United States person in accordance with United States Treasury regulations; or
- (ii) the holder otherwise establishes an exemption.

If a holder of Securities fails to establish an exemption and the broker does not possess adequate documentation of its status as a person who is not a United States person, the payments may be subject to information reporting and backup withholding. However, backup withholding will not apply with respect to payments made to an offshore account maintained by a holder unless the broker has actual knowledge that it is a United States person.

In general, payment of the proceeds from the sale of Securities effected at a foreign office of a broker will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker will be subject to information reporting and backup withholding if:

- (iii) the proceeds are transferred to an account maintained by the holder in the United States;
- (iv) the payment of proceeds or the confirmation of the sale is mailed to the holder at a United States address; or
- (v) the sale has some other specified connection with the United States as provided in United States Treasury regulations;

unless the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above (relating to a sale of Securities effected at a United States office of a broker) are met or the holder otherwise establishes an exemption.

In addition, payment of the proceeds from the sale of Securities effected at a foreign office of a broker will be subject to information reporting, but not backup withholding, if the broker is:

- (vi) a United States person;
- (vii) a controlled foreign corporation for United States tax purposes;
- (viii) a foreign person 50 per cent. or more of whose gross income is effectively connected with the conduct of a United States trade or business for a specified three-year period; or
- (ix) a foreign partnership, if at any time during its tax year:

- (a) one or more of its partners are "U.S. persons", as defined in United States Treasury regulations, who in the aggregate hold more than 50 per cent. of the income or capital interest in the partnership; or
- (b) such foreign partnership is engaged in the conduct of a United States trade or business;

unless the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above (relating to a sale of Securities effected at a United States office of a broker) are met or the holder otherwise establishes an exemption.

## XI. SELLING RESTRICTIONS

Save for the approval of the Base Prospectus by the Competent Authority, and the notification of such approval to the competent authorities of Austria, Belgium, Ireland, France, Liechtenstein, Luxembourg, The Netherlands and Norway, no action has been or will be taken by the Issuer or the Guarantor that would permit a public offering of the Securities or possession or distribution of any offering material in relation to the Securities in any jurisdiction where action for that purpose is required. No offers or sales of any Securities, or distribution of any offering material relating to the Securities, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligation on the Issuer or the Guarantor.

#### **The United States**

No Sales to United States Persons. Neither the Securities nor the Guarantee in respect of the Issuer's obligations in relation to the Securities has been or will be registered under the United States Securities Act of 1933, as amended (the "Securities Act"), and neither the Securities nor the Guarantee may be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, as defined in Regulation S under the Securities Act, except in certain transactions exempt from or not subject to the registration requirements of the Securities Act.

Trading in the Securities has not been and will not be approved by the U.S. Securities and Exchange Commission (the "SEC"), any state securities commission in the United States, an exchange or board of trade or otherwise by the United States Commodity Futures Trading Commission (the "CFTC") under the Commodity Exchange Act, nor has the SEC, any state securities commission, exchange or board of trade or the CFTC passed upon the accuracy or the adequacy of the Base Prospectus. Any representation to the contrary is a criminal offence in the United States. The Base Prospectus may not be used in the United States and may not be delivered in the United States or to a U.S. person.

The Securities will not be directly or indirectly offered, sold, traded or delivered within the United States or to or for the account or benefit of U.S. persons (as defined in Regulation S under the Securities Act).

Each dealer is required to agree that it will not offer or sell the Securities, (i) as part of their distribution at any time; or (ii) otherwise until 40 days after the completion of the distribution of the Series of which such Securities are a part, as determined and certified to the Issuer by the dealer (or, in the case of a Series of Securities sold to or through more than one dealer, by each of such dealers as to Securities of such Series purchased by or through it, in which case such Issuer shall notify each such dealer when all such dealers have so certified), within the United States or to, or for the account or benefit of, U.S. persons. Accordingly, each dealer is required to represent and agree that it, its affiliates and any person acting on its or their behalf have not engaged, and will not engage, in any "directed selling efforts" as defined in Regulation S with respect to the Securities and it and they have complied, and will comply, with the "offering restrictions" requirements under Regulation S. Each dealer is obliged to send to each dealer to which it sells Securities during the distribution compliance period a confirmation or other notice

setting forth the restrictions on offers and sales of the Securities in the United States or to, or for the account or benefit of, U.S. persons.

The term "United States" as used herein means the United States of America, its territories or possessions, any state of the United States, the District of Columbia or any other enclave of the United States government, its agencies or instrumentalities. The term "U.S. person" as used herein means any person who is a U.S. person as defined in Regulation S under the Securities Act.

Unless otherwise specified in the Final Terms relating to a Security the purchaser (or transferee) and each person directing such purchase (or transfer) on behalf of such holder will represent, or will be deemed to have represented and warranted, on each day from the date on which the purchaser (or transferee) acquires the Securities through and including the date on which the purchaser (or transferee) disposes of its interest in the Securities, that the funds that the purchaser (or transferee) is using to acquire the Securities are not the assets (i) of an "employee benefit plan" (as defined in Section 3(3) of Title I of the Employee Retirement Income Security Act of 1974, as amended ("ERISA")) that is subject to the fiduciary responsibility provisions of ERISA, (ii) a "plan" that is subject to Section 4975 of the Internal Revenue Code of 1986, as amended (the "Code"), (iii) any entity whose underlying assets include "plan assets" by reason of any such employee plan's or plan's investment in the entity, or (iv) a governmental, church, non-U.S. or other plan that is subject to any law or regulation that is substantially similar to the provisions of Section 406 of ERISA or Section 4975 of the Code.

# Transfer Restrictions

Each purchaser of any Security, or interest therein, offered and sold in reliance on Regulation S will be deemed to have represented and agreed as follows (terms used in this paragraph that are defined in Regulation S are used herein as defined therein):

- (a) the purchaser (i) is, and the person (if any) for whose account it is acquiring such Security is, outside the United States and is not a U.S. person, and (ii) is acquiring the offered Securities in an offshore transaction meeting the requirements of Regulation S;
- (b) the purchaser is aware that the Securities have not been and will not be registered under the Securities Act and that the Securities are being distributed and offered outside the United States in reliance on Regulation S;
- (c) by its purchase of the Securities, on each day from the date on which the purchaser acquires the Securities through and including the date on which the purchaser disposes of its interest in the Securities, the funds that the purchaser is using to acquire the securities are not the assets of an "employee benefit plan" (as defined in Section 3(3) of Title I of ERISA) that is subject to the fiduciary responsibility provisions of ERISA, a "plan" that is subject to Section 4975 of the Code, any entity whose underlying assets include "plan assets" by reason of any such employee plan's or plan's investment in the entity, or a governmental, church, non-U.S. or other plan that is subject to any law or regulation that is substantially similar to the provisions of Section 406 of ERISA or Section 4975 of the Code;
- (d) the purchaser acknowledges that the Issuer, the dealer(s), their affiliates and others will rely upon the truth and accuracy of the foregoing representations and agreements; and

(e) the purchaser understands that such Security will bear legends substantially in the form set forth in capital letters below.

Each Security offered and sold in reliance on Regulation S will bear legends to the following effect, in addition to such other legends as may be necessary or appropriate, unless the Issuer determines otherwise in compliance with applicable law:

"THE SECURITIES EVIDENCED HEREBY AND THE GUARANTEE IN RESPECT THEREOF HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED IN THE UNITED STATES OR TO U.S. PERSONS (AS THOSE TERMS ARE DEFINED IN REGULATION S UNDER THE SECURITIES ACT) EXCEPT PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF, OR IN A TRANSACTION NOT SUBJECT TO, THE SECURITIES ACT AND IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES OR ANY OTHER JURISDICTION.

BY ITS PURCHASE OF THE SECURITIES, THE PURCHASER (OR TRANSFEREE) AND EACH PERSON DIRECTING SUCH PURCHASE (OR TRANSFER) ON BEHALF OF SUCH HOLDER WILL REPRESENT, OR WILL BE DEEMED TO HAVE REPRESENTED AND WARRANTED, ON EACH DAY FROM THE DATE ON WHICH THE PURCHASER (OR TRANSFEREE) ACQUIRES THE SECURITIES THROUGH AND INCLUDING THE DATE ON WHICH THE PURCHASER (OR TRANSFEREE) DISPOSES OF ITS INTEREST IN THE SECURITIES, THAT THE FUNDS THAT THE PURCHASER (OR TRANSFEREE) IS USING TO ACOUIRE THE SECURITIES ARE NOT THE ASSETS OF AN EMPLOYEE BENEFIT PLAN (AS DEFINED IN SECTION 3(3) OF TITLE I OF THE EMPLOYEE RE-TIREMENT INCOME SECURITY ACT OF 1974, AS AMENDED ("ERISA")) THAT IS SUBJECT TO THE FIDUCIARY RESPONSIBILITY PROVISIONS OF ERISA, A PLAN THAT IS SUBJECT TO SECTION 4975 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED (THE "CODE"), ANY ENTITY WHOSE UNDERLYING ASSETS IN-CLUDE "PLAN ASSETS" BY REASON OF ANY SUCH EMPLOYEE BENEFIT PLAN'S OR PLAN'S INVESTMENT IN THE ENTITY, OR A GOVERNMENTAL, CHURCH, NON-U.S. OR OTHER PLAN THAT IS SUBJECT TO ANY LAW OR REGULATION THAT IS SUBSTANTIALLY SIMILAR TO THE PROVISIONS OF SECTION 406 OF ERISA OR SECTION 4975 OF THE CODE."

# **Public Offer Selling Restrictions under the Prospectus Regulation**

In relation to each Member State of the European Economic Area, any person offering the Securities (the "Offeror") has represented and agreed that it has not made and will not make an offer of Securities which are the subject of the offering contemplated by the Base Prospectus as completed by the Final Terms in relation thereto to the public in a Member State except that it may make an offer of such Securities to the public in a Member State:

(a) if the Final Terms in relation to the Securities specify that an offer of those Securities may be made other than pursuant to Article 1 (4) of the Prospectus Regulation in that

Member State (a "Non-exempt Offer"), following the date of publication of the Base Prospectus in relation to such Securities which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, provided that the Base Prospectus has subsequently been completed by the Final Terms contemplating such Non-exempt Offer in accordance with the Prospectus Regulation, in the period beginning and ending on the dates specified in the Base Prospectus or Final Terms, as applicable, and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer:

- (b) at any time to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- (c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation) subject to obtaining the prior consent of the relevant dealer or dealers nominated by the Issuer for any such offer; or
- (d) at any time in any other circumstances falling within Article 1 (4) of the Prospectus Regulation,

provided that no such offer referred to in (b) to (d) above shall require the Issuer or the Offeror to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression "offer of the Securities to the public", in relation to any Securities in any Member State means the communication in any form and by any means of sufficient information about the conditions of the offer and the Securities to be offered to enable an investor to decide whether to purchase or subscribe the Securities and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129, as amended.

# Public Offer Selling Restrictions under the UK Prospectus Regulation

In relation to the United Kingdom, any person offering the Securities (the "**Offeror**") has represented and agreed that it has not made and will not make an offer of Securities which are the subject of the offering contemplated by this Base Prospectus as completed by the Final Terms in relation thereto to the public in the United Kingdom except that it may make an offer of such Securities to the public in the United Kingdom:

(a) if the Final Terms in relation to the Securities specify that an offer of those Securities may be made other than pursuant to section 86 of the Financial Services and Markets Act 2000, as amended (the "FSMA") (a "Non-exempt Offer"), following the date of publication of the Base Prospectus in relation to such Securities which either (i) has been approved by the Financial Conduct Authority, or (ii) is to be treated as if it had been approved by the Financial Conduct Authority in accordance with the transitional provision in Regulation 74 of the Prospectus (Amendment etc.) (EU Exit) Regulations 2019, provided that the Base Prospectus has subsequently been completed by the Final Terms contemplating such Non-exempt Offer in the period beginning and ending on the dates specified in the Base Prospectus or Final Terms, as applicable and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer;

- (b) at any time to any legal entity which is a qualified investor as defined in Article 2 of the UK Prospectus Regulation;
- (c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in Article 2 of the UK Prospectus Regulation) in the United Kingdom subject to obtaining the prior consent of the relevant dealer or dealers nominated by the Issuer for any such offer; or
- (d) at any time in any other circumstances falling within section 86 of the FSMA,

provided that no such offer of Securities referred to in (b) to (d) above shall require the Issuer or the Offeror to publish a prospectus pursuant to section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an "offer of the Securities to the public" in relation to any Securities means the communication in any form and by any means of sufficient information about the conditions of the offer and the Securities to be offered to enable an investor to decide whether to purchase or subscribe the Securities and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129, as amended, and as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 and regulations made thereunder.

Other regulatory restrictions: Each dealer has represented and agreed, and each further dealer appointed under the Base Prospectus will be required to represent and agree, that:

- (a) *Financial Promotion*: it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 (Financial Promotion) of the FSMA) received by it in connection with the issue or sale of any Securities in which section 21(1) of the FSMA would not, if it was not an authorised person, apply to the Issuer; and
- (b) *General Compliance:* it has complied and will comply with all applicable provisions of the FSMA and the Financial Conduct Authority Handbook with respect to anything done by it in relation to any Securities in, from or otherwise involving the United Kingdom.

# **Argentina**

The offering of Securities has not been authorised by, and the Securities have not been registered with, the Argentine Securities Commission (*Comisión Nacional de Valores*, "CNV"). The CNV has not approved the Base Prospectus or any document related to the offering of the Securities in Argentina. The Securities may not be offered or sold in Argentina except in transactions that will not constitute a public offering of securities within the meaning of Sections 2 and 83 of the Capital Markets Law No. 26,831, as amended.

# Austria

For selling restrictions in respect of Austria, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

#### The Bahamas

The Securities may not be offered or sold in or from within The Bahamas unless the offer or sale is made by a person appropriately licensed or registered to conduct securities business in or from within The Bahamas.

The Securities may not be offered or sold to persons or entities designated or deemed resident in The Bahamas pursuant to the Exchange Control Regulations, 1956 of The Bahamas unless the prior approval of the Central Bank of The Bahamas is obtained.

No offer or sale of the Securities may be made in The Bahamas unless a preliminary prospectus and a prospectus have been filed with the Securities Commission of The Bahamas and the Securities Commission of The Bahamas has issued a receipt for each document, unless such offering is exempted pursuant to the Securities Industry Act, 2011 and the Securities Industry Regulations, 2012. The Base Prospectus has not been registered with the Securities Commission of The Bahamas, nor have any applications been made to exempt such offer from the filing of a prospectus with the Securities Commission of The Bahamas under the Securities Industry Act, 2011.

# Belgium

To the extent applicable, the Issuer undertakes to comply with Book VI of the Belgian Code of Economic Law in respect of the Securities offered to the public in Belgium. For this purpose, a public offer has the meaning set forth in Article 3 of the Belgian Act of 16 June 2006 on the public offer of investment instruments and the admission to trading of investment instruments on a regulated market.

For selling restrictions in respect of Belgium, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

In addition, any offeror of Securities will be required to represent and agree that it will not offer for sale, sell or market Securities to any person qualifying as a consumer within the meaning of Article I.1.2 of the Belgian Code of Economic Law, as amended from time to time, unless such offer, sale or marketing is made in compliance with this Code and its implementing regulation.

#### **Brazil**

The Securities may not be offered or sold to the public in Brazil. Accordingly, the Securities have not been and will not be registered with the Brazilian Securities and Exchange Commission (Comissão de Valores Mobiliários), nor have they been submitted to the foregoing agency for approval. Documents relating to the Securities, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of Securities is not a public offering of securities in Brazil, nor used in connection with any offer for subscription or sale of securities to the public in Brazil. A seller of the Securities may be asked by the purchaser to comply with procedural requirements to evidence previous title to the Securities and may be subject to Brazilian tax on capital gains which may be withheld from the sale price. Persons wishing to offer or acquire the Securities within Brazil should consult with their own counsel as to the applicability of these registration requirements or any exemption therefrom.

# British Virgin Islands ("BVI")

The Base Prospectus is not an offer to sell, or a solicitation or invitation to make offers to purchase or subscribe for, the Securities or any other securities or investment business services

in the BVI. The Base Prospectus may not be sent or distributed to persons in the BVI and the Securities are not available to, and no invitation or offer to subscribe, purchase or otherwise acquire the Securities will be made to, persons in the BVI. However, the Securities may be offered and sold to business companies incorporated in the BVI and international limited partnerships formed in the BVI, provided that any such offering and sale is made outside the BVI or is otherwise permitted by BVI legislation.

Although not currently in force, it is possible that Part II of the Securities and Investment Business Act, 2010 of the BVI ("SIBA") will be brought into force and become law in the BVI in the near future. Upon Part II of SIBA coming into force, the Securities may not, and will not, be offered to the public or to any person in the BVI for purchase or subscription by or on behalf of the Issuer. The Securities may continue to be offered to business companies incorporated in the BVI and international limited partnerships formed in the BVI, but only where the offer will be made to, and received by, the relevant company or limited partnership outside of the BVI. Once Part II of SIBA comes into force, the Securities may also be offered to persons located in the BVI who are "qualified investors" for the purposes of SIBA.

The Base Prospectus has not been reviewed or approved by, or registered with, the Financial Services Commission of the BVI and will not be so registered upon Part II of SIBA coming into force.

# Bulgaria

For selling restrictions in respect of Bulgaria, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

# Chile

The Issuer and the Securities have not been, and will not be, registered with the Chilean Commission for the Financial Market (*Comisión para el Mercado Financiero*, "CMF") pursuant to Law No. 18.045 (*Ley de Mercado de Valores*, "Securities Market Act"), as amended, of the Republic of Chile and, accordingly, no person shall offer or sell the Securities within Chile or to, or for the account or benefit of, persons in Chile except in circumstances which have not resulted and will not result in a public offering and/or in the conduct of intermediation (*funciones de intermediación*) within the meaning of Chilean law.

The offer of any Securities pursuant to the Base Prospectus begins on the date of issuance of the relevant Final Terms. Any such offer of Securities complies with General Rule N°. 336 of the CMF. Since the Securities to which an offer relates have not been registered in the Foreign Securities Registry of the CMF, they are not subject to the supervision of such entity. As any offer of Securities pursuant to the Base Prospectus does not relate to registered securities, there is no obligation on the Issuer of the Securities to deliver in Chile public information regarding the Securities. The Securities may not be publicly offered in Chile as long as they are not registered in the corresponding Securities Registry.

The above paragraph has to be reproduced in Spanish in order to comply with the General Rule  $N^{\circ}$ . 336. Therefore, the following paragraph is only a translation into Spanish of this paragraph's disclaimers and does not contain any additional statement.

#### Colombia

The Base Prospectus, together with the Final Terms for each issue of Securities, is for the sole and exclusive use of the addressee as a determined individual/entity, and cannot be understood as addressed or be used by any third party, including but not limited to third parties for which the addressee can legally or contractually represent, nor any of its shareholders, administrators or by any of the employees of the addressee. Any material to be delivered in Colombia or to any person located, domiciled or established in Colombia, shall be for the sole and exclusive use of the recipient.

The Base Prospectus, together with the Final Terms for each issue of Securities, has not been and will not be filed with or approved by the Colombian Financial Superintendency or any other regulatory authority in Colombia.

The issuance of the Securities, its trading and payment shall occur outside Colombia; therefore the Securities have not been and will not be registered before the Colombian National Registry of Issuer and Securities, nor with the Colombian Stock Exchange. The delivery of the Base Prospectus or the Final Terms for each issue of Securities does not constitute a public offer of securities under the laws of Colombia. The Base Prospectus, together with the Final Terms for each issue of Securities, does not constitute and may not be used for, or in connection with, a public offering as defined under Colombian law and shall be valid in Colombia only to the extent permitted by Colombian law. Under Colombian regulations, any offering addressed to 100 or more named individuals or companies shall be deemed to be an offering to the public requiring the prior approval of the Colombian Financial Superintendency and listing on the Colombian National Registry of Issuers and Securities.

The Securities may not be solicited, publicly offered, transferred, sold or delivered, whether directly or indirectly, to any individual or legal entity in Colombia.

The addressee acknowledges the Colombian laws and regulations (including but not limited to foreign exchange and tax regulations) applicable to any transaction or investment made in connection with the Base Prospectus or the Final Terms for each issue of Securities and acknowledges and represents that it is the sole responsible party for full compliance with any such laws and regulations. Additionally, Colombian investors are solely liable for conducting an investment suitability analysis as per their applicable investment regime.

#### Costa Rica

Any offer of Securities under the Base Prospectus will be an individual and private offer which is made in Costa Rica upon reliance on an exemption from registration before the General Superintendence of Securities ("SUGEVAL"), pursuant to articles 6 and 7 of the Regulations on the Public Offering of Securities (Reglamento sobre Oferta Pública de Valores).

This offering is NOT a public offering of securities in Costa Rica.

The product being offered is not intended for the Costa Rican public or market and neither is it registered or will be registered before the SUGEVAL, nor can it be traded in the secondary market.

# Czech Republic

For selling restrictions in respect of the Czech Republic, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

"Qualified investors" for the purpose of a Czech offering are (a) persons specified in Article 2a paragraph 1 and 2 of Act No. 256/2004 Coll., on Capital Markets Undertakings, as amended (the "Czech Capital Markets Act") and/or (b) persons who are considered as professional customers under Article 2b of the Czech Capital Markets Act, to the extent of trading or investment instruments relating to the offered securities.

The monetary amount relevant for the exemption from the obligation to publish a prospectus under Article 1(4)(c) and 1(4)(d) of the Prospectus Regulation is determined by the applicable governmental regulations, as amended and/or replaced from time to time.

#### **Denmark**

The Base Prospectus has not been filed with or approved by the Danish Financial Supervisory Authority or any other regulatory authority in the Kingdom of Denmark. The Securities have not been offered or sold and may not be offered, sold or delivered directly or indirectly in Denmark, unless in compliance with Chapter 3 of the Danish Capital Markets Act and executive orders issued pursuant thereto as amended from time to time.

# **Dominican Republic**

The issuance, circulation and offering of the Securities has a strictly private character according to the laws of the Dominican Republic, falling beyond the scope of articles 1 numeral (31), 46 et al of Law 249-17 dated 19 December 2017, as amended. Since no governmental authorisations are required in this issuance, circulation and offering, the Securities under the Base Prospectus have not been and will not be registered with the Superintendency of the Stock Market of the Dominican Republic (Superintendencia del Mercado de Valores de la República Dominicana), considering that and Securities will only be circulated, offered and sold in the Dominican Republic in a private manner based on the criteria established under Dominican laws and regulations.

#### El Salvador

The Base Prospectus has been provided to the recipient under the recipient's express request and instructions, and on a private placement basis.

# **Finland**

For selling restrictions in respect of Finland, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

The Base Prospectus has not been filed with or approved by the Finnish Financial Supervisory Authority. The Securities may only be offered or sold in compliance with all applicable provisions of the laws of Finland and especially in compliance with the Finnish Securities Market Act (*arvopaperimarkkinalaki* (746/2012), as amended) and any regulation or rule made thereunder, as supplemented and amended from time to time.

#### France

Any offeror of the Securities and the Issuer has represented and agreed that it has not offered or sold and will not offer or sell, directly or indirectly, any Securities to the public in France and it has not distributed or caused to be distributed and will not distribute or cause to be distributed to the public in France, the Base Prospectus, the relevant Final Terms or any other offering material relating to the Securities and that such offers, sales and distributions have been and shall only be made in France only in circumstances that do constitute an offer to the public exempted from the obligation to publish a prospectus pursuant to Articles L.411-2 and L.411-2-1 of the French Monetary and Financial Code and more particularly to (i) qualified investors (investisseurs qualifiés) as defined in, and in accordance with Article L 411-2 1° of the French Monetary and Financial Code and Article 2(e) of the Prospectus Regulation, (ii) a restricted group of investors (cercle restreint d'investisseurs) other than qualified investors, acting for their own account and/or (iii) other investors in circumstances which do not require the publication by the offeror of a prospectus pursuant to the Prospectus Regulation, the French Code monétaire et financier and the Règlement général of the Autorité des marchés financiers ("AMF"). Accordingly, the offer of the Securities in France does not require a prospectus to be submitted to the AMF for its prior approval, and the Base Prospectus has not been approved by the AMF.

The direct or indirect resale of Securities which have been acquired in with respect to an offer to the public exempted from the obligation to publish a prospectus shall be subject to the same restrictions and shall be made only as provided by and in accordance with articles L.411-2, L.411-2-1, L.412-1 and L.621-8 of the French *Code monétaire et financier*.

#### Germany

For selling restrictions in respect of Germany, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

#### Greece

For selling restrictions in respect of Greece, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

The Base Prospectus (and/or any supplement and/or final terms thereto) has not been approved by the Hellenic Capital Market Commission and no approval has been sought or obtained from the Hellenic Capital Market Commission for the offer, distribution and marketing or sale of the Securities in Greece.

The Securities may only be offered or sold in compliance with all applicable provisions of the laws of Greece and any regulation or rule made thereunder, as supplemented and amended from time to time.

Neither the Base Prospectus nor any other document connected therewith may be distributed, passed on or disclosed to any person in Greece, unless it has been approved by the competent authority and published pursuant to the Prospectus Regulation and validly passported to Greece.

# **Hong Kong**

No advertisement, invitation or document relating to the Securities may be issued, or may be in the possession of any person for the purpose of issue, (in each case whether in Hong Kong or elsewhere), if such advertisement, invitation or document is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to Securities which are or are intended to be disposed of only to persons outside of Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong, the "SFO") and any rules made thereunder. In addition, in respect of Securities which are not a "structured product" as defined in the SFO, the Securities may not be offered or sold by means of any document other than (i) to "professional investors" within the meaning of the SFO and any rules made thereunder; or (ii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap 32, Laws of Hong Kong, the "CO") or which do not constitute an offer to the public within the meaning of the CO.

Unless (a) the Securities are not linked to an Underlying Asset or do not otherwise include a derivative and/or (b) you are an institution or are otherwise an institutional or an eligible corporate professional investor which satisfies requirements under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission for whom an assessment of the suitability of the Securities for you by the selling intermediary is not required under applicable Hong Kong laws, regulations and rules, you should take note of the following warning:

This is a structured product involving derivatives. The investment decision is yours but you should not invest in the Securities unless the intermediary who sells it to you has explained to you that the product is suitable for you having regard to your financial situation, investment experience and investment objectives.

Where the Securities are not linked to any Underlying Asset or do not otherwise include a derivative, if you are not an institution or an institutional or an eligible corporate professional investor which satisfies requirements under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission for whom an assessment of the suitability of the Securities for you by the selling intermediary is not required under applicable Hong Kong laws, regulations and rules, you should take note of the following warning:

This is an investment product. The investment decision is yours but you should not invest in the Securities unless the intermediary who sells it to you has explained to you that the product is suitable for you having regard to your financial situation, investment experience and investment objectives.

In either case, you should also take note of the following warning:

The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

Neither the Issuer nor the Guarantor accepts any responsibility for any acts or omissions of such intermediary.

# Hungary

The Base Prospectus has not been approved by the *Magyar Nemzeti Bank* (*Hungarian National Bank*).

In addition to any other general selling restrictions in the Base Prospectus (including, but not limited to restrictions under the headings "Public Offer Selling Restrictions under the Prospectus Regulation' above), the following restrictions also apply to an offer in Hungary of Securities which are the subject of the offering contemplated by the Base Prospectus (hereinafter an "Offer" for the purposes of the selling restrictions applicable in relation to Hungary).

Any Offer of Securities in Hungary is authorized only if all rules specified in the laws and regulation of Hungary and the European Union (especially, but not limited to the Prospectus Regulation and Sections 13 to 51 of the Capital Market Act, as amended from time to time) are fully complied with and no further obligations or sanctions arise for any of the Issuer.

# Private placement

A placement of such Securities in Hungary that is

- (i) neither an offer of Securities to the public pursuant to the Prospectus Regulation
- (ii) nor the admission of such Securities to trading on a regulated market;

qualifies as a private placement (zártkörű forgalombahozatal) in Hungary.

An Offer of Securities in Hungary by way of a private placement is authorized only (and without prejudice to compliance with any other applicable restriction) if all rules specified in Hungarian Act CXX of 2001 on the Capital Market Act (the "Capital Market Act") are complied with, which requires, among others,

- in Section 16 of the Capital Market Act, the equal distribution (by the issuer or the dealer) of information to all investors on the material information of the market, economic, financial and legal situation and prospects of the issuer and the information necessary to assess the rights attaching to the underlying instruments (including information raised in personal discussions with investors)
- in Section 17 of the Capital Market Act, that the private placement in Hungary is subsequently notified to the Hungarian National Bank within 15 days of completion by the issuer;
- in Section 18 of the Capital Market Act, that each and any written document related to the
   Offer must clearly indicate that the Offer is a private placement.

Additional obligations in respect of exempt offers of securities to the public

An Offer that is falling within any of paragraphs a), b), c), d), e) or j) of Article 1(4) of the Prospectus Regulation is only authorized in Hungary if the rules specified in Section 16 of the Capital Market Act (applicable through section 21 (1c) of the Capital Market Act and partially summarized above) are fully complied with (without prejudice to compliance with any other applicable restriction).

An Offer that is falling within Article 1(4) or any of paragraphs a) - h) of Article 1(5) of the Prospectus Regulation is only authorized in Hungary if the Issuer agrees and undertakes to duly notify the Hungarian National Bank about the Offer in Hungary subsequently within 15 days of completion (pursuant to section 17 of the Capital Market Act; applicable through section 21 (1c) of the Capital Market Act) (without prejudice to compliance with any other applicable restriction).

Registration in a multilateral trading facility

The registration of Securities which are the subject of the offering contemplated by the Base Prospectus as completed by the relevant Final Terms in a multilateral trading facility or the publication of selling and purchase prices is not authorized in Hungary unless in compliant with the Capital Markets Act and other Hungarian laws and regulations as amended from time to time.

#### **Ireland**

In addition to the circumstances referred to in the section entitled "Public Offer Selling Restrictions under the Prospectus Regulation", each offeror of Securities will be required to represent, warrant and agree that it has not offered, sold, placed or underwritten and that it will not offer, sell, place or underwrite the Securities, or do anything in Ireland in respect of the Securities, otherwise than in conformity with the provisions of:

- (a) the Regulation (EU) 2017/1129 (Prospectus Regulation) and any Central Bank of Ireland ("**Central Bank**") rules issued and / or in force pursuant to section 1363 of the Companies Act 2014 (as amended);
- (b) the Companies Act 2014 (as amended);
- (c) the European Union (Markets in Financial Instruments) Regulations 2017 (as amended) and it will conduct itself in accordance with any rules or codes of conduct and any conditions or requirements, or any other enactment, imposed or approved by the Central Bank;
- (d) Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse, the European Union (Market Abuse) Regulations 2016 and any Central Bank rules issued and / or in force pursuant to section 1370 of the Companies Act 2014 (as amended), and will assist the Issuer in complying with its obligations thereunder;
- (e) Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance based investment products (PRIIPs); and
- (f) the Central Bank Acts 1942 to 2018 (as amended) and any codes of conduct rules made under Section 117(1) of the Central Bank Act 1989.

## **Italy**

Unless and until the offering of Securities has been registered pursuant to Italian securities legislation, no Securities may be offered, sold or delivered, nor may copies of the Base

Prospectus, any final terms or of any other document relating to the Securities be distributed in the Republic of Italy, except:

- to qualified investors (*investitori qualificati*), as defined under Article 100 of the Legislative Decree No. 58 of 24 February 1998, as amended (the "**Financial Services Act**"), as implemented by Article 34-ter, first paragraph, letter b), of CONSOB Regulation No. 11971 of 14 May 1999, as amended ("**CONSOB Regulation No. 11971**"); or
- (b) in other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Financial Services Act and Article 34-ter, first paragraph, of CONSOB Regulation No. 11971.

Any offer, sale or delivery of the Securities or distribution of copies of the Base Prospectus, any Final Terms or any other document relating to the Securities in the Republic of Italy under (i) or (ii) above must be:

- (a) made by an investment firm, bank or financial intermediary permitted to conduct such activities in the Republic of Italy in accordance with the Financial Services Act, CONSOB Regulation No. 20307 of 15 February 2018 (as amended from time to time) and Legislative Decree No. 385 of 1 September 1993, as amended (the "Banking Act");
- (b) in compliance with Article 129 of the Banking Act, as amended, and the implementing guidelines of the Bank of Italy which came into force on 1 October 2016, as amended from time to time, pursuant to which the Bank of Italy requests periodic information on the issue or the offer of securities in the Republic of Italy to be provided by uploading such information on the Infostat platform of the Bank of Italy; and
- in compliance with any other applicable laws and regulations or requirement imposed by CONSOB or other Italian authority.

Please note that in accordance with Article 100-bis of the Financial Services Act, where no exemption from the rules on public offerings applies under (i) and (ii) above, the Securities which are initially offered and placed in Italy or abroad to qualified investors only but in the following year are regularly ("sistematicamente") distributed on the secondary market in Italy to non-qualified investors become subject to the public offer and the prospectus requirement rules provided under the Financial Services Act and CONSOB Regulation No. 11971. Failure to comply with such rules may result in the sale of such Securities being declared null and void and in the liability of the intermediary transferring the Securities for any damages suffered by such non-qualified investors.

# Japan

The Securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Law No. 25 of 1948, as amended, the "FIEA") and, accordingly, each Dealer has agreed and each further Dealer to be appointed under the Programme will be required to agree that it will not offer or sell any Securities, directly or indirectly, in Japan, or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for reoffering or resale, directly or indirectly, in Japan or to any resident of Japan, except

pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEA and any other applicable laws, regulations and ministerial guidelines of Japan.

# **Jersey**

No consent under Article 8(2) of the Control of Borrowing (Jersey) Order 1958 has been obtained in relation to the circulation in Jersey of any offer of Securities and any such offer must be addressed exclusively to a restricted circle of persons in Jersey. For these purposes an offer is not addressed exclusively to a restricted circle of persons unless (i) the offer is addressed to an identifiable category of persons to whom it is directly communicated by the offeror or the offeror's appointed agent, (ii) the members of that category are the only persons who may accept the offer and they are in possession of sufficient information to be able to make a reasonable evaluation of the offer and (iii) the number of persons in Jersey to whom the offer is so communicated does not exceed fifty.

#### Liechtenstein

For selling restrictions in respect of Liechtenstein, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

# Luxembourg

For selling restrictions in respect of Luxembourg, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

#### Mexico

The Securities have not been and will not be registered with the Mexican National Securities Registry (Registro Nacional de Valores), maintained by the Mexican National Banking and Securities Commission (Comisión Nacional Bancaria de Valores), and may not be offered or sold publicly in Mexico. The Securities may be sold in Mexico, by any person, including the Issuer, to investors that qualify as institutional and accredited investors in Mexico, pursuant to the private placement exemption set forth in Article 8 of the Mexican Securities Market Law (Ley del Mercado de Valores).

#### **Norway**

For selling restrictions in respect of Norway, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

In no circumstances may an offer of Instruments or Notes be made in the Norwegian market without the Instruments or Notes being registered in the VPS in dematerialised form or in another central securities depository which is properly authorised and recognised by the Financial Authority of Norway (*Nw. Finansilsynet*) as being entitled to register the Instruments or Notes pursuant to Regulation (EU) No 909/2014, to the extent such Instruments or Notes shall be registered, according to the Norwegian Central Securities Depositories Act (*Nw. Verdipapirsentralloven, 2019*) and ancillary regulations.

#### **Panama**

The Securities have not been and will not be Registered with the Superintendence of Capital Markets of the Republic of Panama under Decree law No.1 of July 8, 1999 (as amended to date,

the "Panamanian Securities Act") and may not be publicly offered or sold within Panama, except in certain limited transactions exempt from the registration requirements of the Panamanian Securities Act. These Securities do not benefit from the tax incentives provided by the Panamanian Securities Act and are not subject to regulation or supervision by the Superintendence of Capital Markets of the Republic of Panama.

Neither the Securities nor the offer, sale or transactions related to the same have been registered with the Superintendence of Capital Markets. The exemption from registration is based on paragraph (3) of Article 129 of the Amended and Restated Text of Law Decree N°1 of July 8, 1999 (institutional investors). Accordingly, the tax treatment set forth in Articles 334 thru 336 of said Amended and Restated Text of Law Decree N°1 of July 8, 1999 is not applicable. The Securities are not subject to the supervision of the Superintendence of Capital Markets.

Institutional investors that purchase the Securities pursuant to the institutional investor exemption must hold the Securities for a year and during that period may only sell these securities to other institutional investors.

#### **Paraguay**

The Base Prospectus does not constitute a public offering of securities or other financial products and services in Paraguay. Each purchaser of Securities acknowledges that the securities and financial products to be offered under this Programme will be issued outside of Paraguay. Each purchaser of Securities acknowledges that any legal matter arising from any offer of Securities shall not be submitted to any Paraguayan government authority. Each purchaser of Securities acknowledges as well that the Paraguayan Deposit Insurance legislation does not cover the products offered hereby or assets or funds allocated for these purposes. The Paraguayan Central Bank, the Paraguayan National Stock Exchange Commission and the Paraguayan Banking Superintendence do not regulate the offering of these products or their undertaking. Each purchaser of Securities should make his own decision whether this offering meets his investment objectives and risk tolerance level.

#### Peru

The Securities and the Base Prospectus have not been registered in Peru under the *Decreto Supremo No 093-2002-EF: Texto Único Ordenado de la Ley del Mercado de Valores* (the "**Peruvian Securities Law**") nor have they been approved by the Superintendencia del Mercado de Valores and cannot be offered or sold in Peru except in a private offering under the meaning of the Peruvian Securities Law. The Peruvian Securities Law provides that an offering directed exclusively to "institutional investors" (as defined in the Institutional Investors Market Regulations) qualifies as a private offering. The Securities acquired by institutional investors in Peru cannot be transferred to a third party, unless such transfer is made to another institutional investor or the Securities have been previously registered with the *Registro Público del Mercado de Valores maintained by the Superintendencia del Mercado de Valores*.

#### **Poland**

In addition to provisions applicable to the "Public Offer Selling Restrictions under the Prospectus Regulation" stated above, the following applies:

With respect to the offer, delivery, advertisement or sale of Securities no approval has been sought or obtained from the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*) and the offer, delivery, advertisement or sale of Securities was not notified to the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*).

Any offer, delivery, advertisement or sale of the Securities or distribution of copies of the Base Prospectus, any pricing supplement or any other document relating to the Securities to the public in Poland must be made in accordance with:

- (a) the Prospectus Regulation;
- (b) the Polish Act on Public Offers and Conditions of Introducing Financial Instruments to Organised Trading and on Public Companies of 29 July 2005 (as amended) ("Act on Public Offers");
- (c) the Polish Act on Trading in Financial Instruments of 29 July 2005 (as amended); and
- (d) any other applicable laws and regulations or requirement imposed by the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego) or other Polish authority.

In particular, according to Article 3 Section 1(a) of the Act on Public Offers, an offer of securities to the public referred to in Article 1 Section 4(b) of the Prospectus Regulation, in the case of which the number of persons to whom it is directed together with the number of persons to whom public offers referred to in Article 1 Section 4(b) of Prospectus Regulation were directed, of the same type of securities, carried out over the past 12 months, exceeds 149, requires that an information memorandum referred to in Article 38b of the Polish Act on Public Offers shall be published, which is subject to the Polish Financial Supervision Authority's (*Komisja Nadzoru Finansowego*) approval.

The provision under Article 3 Section 1(a) of the Act on Public Offers is not applicable if the offer is directed solely to the holders of the same type of securities of the same issuer or to entities which were offered the issuer's securities by way of exchanging receivables from the redemption of the previously issued securities of the issuer.

Moreover, according to the Act on Public Offers, advertisements of an offer of securities to the public referred to in Article 1 Section 4(b) of the Prospectus Regulation may only be disseminated to less than 150 persons in the territory of one Member State and cannot be made available to an unknown recipient.

If, pursuant to the provisions of the Prospectus Regulation, it is not required to make the prospectus available, the advertisements should be consistent with the information included in the information memorandum or any other document required under the Act on Public Offers or the Prospectus Regulation, made available to the public, or with information which should be included in the memorandum or in the document pursuant to the provisions of the Act on Public Offers, the Prospectus Regulation and delegated and implementing acts issued on the basis thereof, if the information memorandum or such document have not yet been made available to the public, and they cannot mislead investors in respect of the issuer's situation and the assessment of the securities.

# **Portugal**

The Securities may only be offered in Portugal in compliance with the provisions of the Portuguese Securities Code (*Código dos Valores Mobiliários*, approved by the Decree-Law 486/99, of November 13, as amended) and other laws and regulations applicable to the offer and sale of the Securities in Portugal. The Base Prospectus has not been verified by the Portuguese Securities Exchange Commission (*Comissão do Mercado de Valores Mobiliários*, or the "CMVM") and the Securities are not registered therewith for public offer in Portugal. The recipients of the Base Prospectus and other offering materials in respect of the Securities are professional investors, targeted exclusively on the basis of a private placement, all as defined in and in accordance with articles 30, 109 and 110 of the Portuguese Securities Code. Accordingly, the Securities must not be, and are not being, offered or advertised, and no offering or marketing materials relating to the Securities may be made available or distributed in any way that would constitute a public offer under the Portuguese Securities Code (whether at present or in the future).

#### Saudi Arabia

No action has been or will be taken in the Kingdom of Saudi Arabia that would permit a public offering of the Securities. Any investor in the Kingdom of Saudi Arabia or who is a Saudi person (a "Saudi Investor") who acquires any Securities pursuant to any offering should note that the offer of Securities is a private placement under Article 8 or Article 9 or Article 10, or Article 11 or Article 12 of the "Rules on the Offer of Securities and Continuing Obligations" as issued by the Board of the CMA pursuant to its resolution number 3-123-2017 dated 9/4/1439H corresponding to 27/12/2017G amended by Resolution of the Board of the CMA number 1-104-2019 dated 01/02/1441H corresponding to 30/09/2019G (the "KSA Regulations") for the purposes of Article 11 of the KSA Regulations through a person authorised by the CMA to carry on the securities activity of arranging and following a notification to the CMA under the KSA Regulations.

The Securities may thus not be advertised, offered or sold to any person in the Kingdom of Saudi Arabia other than to "sophisticated investors" under Article 9 of the KSA Regulations or by way of a limited offer under Article 10 of the KSA Regulations. Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that any offer of Securities will comply with the KSA Regulations.

Each offer of Securities shall not therefore constitute a "public offer" pursuant to the KSA Regulations, but is subject to the restrictions on secondary market activity under Article 15 of the KSA Regulations. Any Saudi Investor who has acquired Securities pursuant to a private placement under Article 11, Article 9 or Article 10 or is an Exempt offer under Article 6 of the KSA Regulations may not offer or sell those Securities to any person unless the offer or sale is made through an authorised person appropriately licensed by the CMA and where one of the following requirements is met:

(a) An offer of securities is a limited offer if at the subscription is limited to no more than 100 offerees (excluding sophisticated investors) and the minimum amount payable per offeree is not less than one million SR or an equivalent amount. The minimum amount

- payable per offeree may be less than one million SR where the total value for the offered securities does not exceed five million SR;
- (b) Securities of the same class may not be offered as a limited offer under paragraph (a) of this Article more than once in a twelve-month period ending with the date of the offer in question;
- (c) the offer.is an exempt offer;
- (d) the securities are offered or sold to a sophisticated investor; or
- (e) the securities are being offered or sold in such other circumstances as the CMA may prescribe for these purposes.

All the above restrictions shall cease to apply upon approval of listing on the Saudi Stock Exchange of securities of the same class as the Securities that are subject to such restrictions.

If the requirement in paragraph (a) above cannot be fulfilled because the price of the Securities being offered or sold to the transferee has declined since the date of the original private placement, the transferor may offer or sell the Securities to the transferee if their purchase price during the period of the original private placement was equal to or exceeded Saudi Riyals one million or an equivalent amount. If this requirement cannot be fulfilled, a Saudi Investor may offer or sell the Securities if he sells his entire holding of such Securities to one person.

All the above provisions shall apply to all subsequent transferees of such Securities.

# **Singapore**

The Base Prospectus has not been registered as a prospectus with the Monetary Authority of Singapore (the "MAS") under the Securities and Futures Act, Chapter 289 of Singapore, as amended or modified (the "SFA").

#### Securities

Where the Securities are:

- linked to Underlying Assets which are shares (other than units of a collective investment scheme) of a corporation (whether incorporated in Singapore or elsewhere), debentures of an entity, units in a business trust, any instrument conferring or representing a legal or beneficial ownership interest in a corporation, partnership or limited liability partnership formed in Singapore or elsewhere (each of the foregoing, an "SFA security"), or any derivatives contract of which the underlying thing or any of the underlying things is a SFA security or a SFA securities index, or such other product or class of products prescribed by the MAS ("Non-CIS Reference Items"); or
- (b) linked to Underlying Assets which fall within the ambit of a "collective investment scheme" (as defined in the SFA) (the "CIS Reference Items"),

the Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Securities or the Non-CIS Reference Items may not be circulated or distributed, nor may the Securities or the Non-CIS Reference Items be offered or sold, or be made the subject of an invitation for subscription or purchase, whether

directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in the SFA) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275 of the SFA, and where applicable, the conditions specified in Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018 or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where Securities or Non-CIS Reference Items are subscribed for or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor.
  - securities (as defined in Section 2(1) of the SFA) or securities-based derivatives contracts (as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Securities or Non-CIS Reference Items pursuant to an offer made under Section 275 of the SFA except:
  - (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
  - (ii) where no consideration is or will be given for the transfer;
  - (iii) where the transfer is by operation of law;
  - (iv) as specified in Section 276(7) of the SFA; or
  - (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

## Securities Linked to CIS Reference Items with Physical Delivery

# (A) Securities linked to CIS Reference Items where the Securities do not provide for a right or interest (including an option) in respect of units in a CIS Reference Item

Where the Securities are linked to CIS Reference Items and do provide for a right to physical delivery of the CIS Reference Items (whether such right is contingent on the fulfilment of any condition or not), the selling restriction applicable to Securities as specified above will apply to such Securities linked to CIS Reference Items, and additionally, the offer or invitation of the Securities and CIS Reference Items, which is the subject of the Base Prospectus, does not relate to a collective investment scheme which is authorised under Section 286 of the SFA or recognised under Section 287 of the SFA. The Programme and the Issuer are not authorised or recognised by the MAS and the Securities and the CIS Reference Items are not allowed to be

offered to the retail public. The Base Prospectus and any other document or material issued in connection with the offer or sale is not a prospectus as defined in the SFA, and accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply, and you should consider carefully whether the investment is suitable for you.

The Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the CIS Reference Items may not be circulated or distributed, nor may the CIS Reference Items be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in the SFA) under Section 304 of the SFA, (ii) to a relevant person (as defined in Section 305(5) of the SFA) pursuant to Section 305(1) or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305 of the SFA and where applicable, the conditions specified in Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018 or, (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where CIS Reference Items are subscribed for or purchased under Section 305 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,
  - securities (as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the CIS Reference Items pursuant to an offer made under Section 305 of the SFA except:
  - (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 305A(3)(i)(B) of the SFA;
  - (ii) where no consideration is or will be given for the transfer;
  - (iii) where the transfer is by operation of law;
  - (iv) as specified in Section 305A(5) of the SFA; or
  - (v) as specified in Regulations 36 and 36A of the Securities and Futures (Offers of Investments) (Collective Investment Schemes) Regulations 2005 of Singapore.

# (B) Securities Linked to CIS Reference Items where the Securities provide for a right or interest (including an option) in respect of units in a CIS Reference Item

Where the Securities are linked to CIS Reference Items and do provide for a right to physical delivery of the CIS Reference Items (whether such right is contingent on the fulfilment of any condition or not), and additionally, the Securities provide for a right or interest (including an option) in respect of units in a CIS Reference Item, the offer or invitation of the Securities and

CIS Reference Items, which is the subject of the Base Prospectus, does not relate to a collective investment scheme which is authorised under Section 286 of the SFA or recognised under Section 287 of the SFA. The Programme and the Issuer are not authorised or recognised by the MAS and the Securities and the CIS Reference Items are not allowed to be offered to the retail public. The Base Prospectus and any other document or material issued in connection with the offer or sale is not a prospectus as defined in the SFA, and accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply, and you should consider carefully whether the investment is suitable for you.

The Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Securities or CIS Reference Items may not be circulated or distributed, nor may the Securities or CIS Reference Items be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in the SFA) under Section 304 of the SFA, (ii) to a relevant person (as defined in section 305(5) of the SFA) pursuant to Section 305(1) or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305 of the SFA, and where applicable, the conditions specified in Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018 or, (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where Securities or CIS Reference Items are subscribed for or purchased under Section 305 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor.
  - securities (as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Securities or CIS Reference Items pursuant to an offer made under Section 305 of the SFA except:
  - (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 305A(3)(i)(B) of the SFA;
  - (ii) where no consideration is or will be given for the transfer;
  - (iii) where the transfer is by operation of law;
  - (iv) as specified in Section 305A(5) of the SFA; or
  - (v) as specified in Regulations 36 and 36A of the Securities and Futures (Offers of Investments) (Collective Investment Schemes) Regulations 2005 of Singapore.

Any reference to the "SFA" is a reference to the Securities and Futures Act, Chapter 289 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a

reference to that term as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

# **Slovak Republic**

For selling restrictions in respect of the Slovakia, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above, with the following exemption:

"Qualified investors" for the purpose of Slovak offering of securities are persons specified in Article 8a paragraph 2 of Act No. 566/2001 Coll., on Securities and Investment Services and on amendment of another laws, as amended ("Slovak Securities Act").

The Securities may only be offered or sold in compliance with all applicable provisions of the laws of Slovakia and especially in compliance with the Slovak Securities Act.

#### **South Africa**

Each Dealer has (or will have) represented, warranted and agreed that it (i) will not offer Securities for subscription, (ii) will not solicit any offers for subscription for or sale of the Securities, and (iii) will itself not sell or offer the Securities in South Africa in contravention of the South African Companies Act, 2008, the South African Banks Act, 1990, the South African Exchange Control Regulations, 1961, promulgated pursuant to the South African Currency and Exchanges Act, 1933 and/or any other applicable laws and regulations of South Africa in force from time to time.

Prior to the issue of any Securities under the Programme, each Dealer who has (or will have) agreed to place those Securities will be required to represent and agree that it will not make an "offer to the public" (as such expression is defined in the South African Companies Act, 2008, and which expression includes any section of the public) of Securities (whether for subscription, purchase or sale) in South Africa. The Base Prospectus does not, nor is it intended to, constitute a prospectus prepared and registered under the South African Companies Act, 2008.

# Offers not deemed to be offers to the public

Offers for subscription for, or sale of, Securities are not deemed to be offers to the public if:

- (a) made only to certain investors contemplated in section 96(1)(a) of the South African Companies Act, 2008; or
- (b) the total contemplated acquisition cost of Securities, for any single addressee acting as principal, is equal to or greater than ZAR 1,000,000, or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act, 2008.

Information made available in the Base Prospectus should not be considered as "advice" as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

# Spain

The Base Prospectus has not been and it is not envisaged to be approved by, registered or filed with, or notified to the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores). It is not intended for the public offering or sale of Securities in Spain and does not

constitute a prospectus (registration document or base prospectus) for the public offering of Securities in Spain.

Accordingly, no Securities may be offered, sold, delivered, marketed nor may copies of the Base Prospectus or any other document relating to the Securities be distributed in Spain, and investors in the Securities may not sell or offer such Securities in Spain other than in compliance with the requirements set out by the Prospectus Regulation, articles 35 of the Royal Legislative Decree 4/2015 of 23 October of the Securities Markets (*Real Decreto Legislativo 4/2015*, *de 23 de octubre, por el que se aprueba el texto refundido de la Ley del Mercado de Valores*), as amended and restated, ("Royal Legislative Decree 4/2015") and 38 of Royal Decree 1310/2005, of 4 November, partially developing Law 24/1988, of 28 July on admission to trading of securities in official secondary markets, public offerings and prospectus (*Real Decreto 1310/2005*, *de 4 de noviembre, por el que se desarrolla parcialmente la Ley 24/1988, de 28 de julio, del Mercado de Valores, en materia de admisión a negociación de valores en mercados secundarios oficiales, de ofertas públicas de venta o suscripción y del folleto exigible a tales efectos*), as amended and restated (the "Royal Decree 1310/2005") so that any sale or offering of the Securities in Spain is not classified as a public offering of securities in Spain.

Thereby, the Securities may not be listed, offered, sold or distributed in Spain, except in accordance with the requirements set out in Spanish laws transposing the Prospectus Regulation, in particular Royal Legislative Decree 4/2015, and Royal Decree 1310/2005 or any other related regulations that may be in force from time to time, as further amended, supplemented or restated.

#### Sweden

For selling restrictions in respect of Sweden, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

# **Switzerland**

The Securities must not be offered in Switzerland and each offeror of Securities represents and agrees that it has not made and will not make an offer of the Securities to the public in Switzerland, except that the Securities may be offered and an offeror may make an offer of the Securities to the public in Switzerland

- (a) if the relevant Final Terms in respect of any Securities specify Switzerland as an Offer State, in the period beginning and ending on the dates specified in the relevant Final Terms and consent has been granted to its use for the purpose of such offer to the public in accordance with Article 36 para. 4 FinSA and Article 45 Financial Services Ordinance ("FinSO"),
- (b) if any exemption listed in Article 36 para. 1 FinSA, or

provided that no offer of Securities referred to in (b) above shall require the Issuer or any offeror to publish a prospectus pursuant to Article 35 FinSA. For the purposes of this provision, the expression "**offer to the public**" refers to the respective definitions in Article 3 lit. g and h FinSA and as further detailed in the FinSO.

#### The Netherlands

For selling restrictions in respect of The Netherlands, please see "Public Offer Selling Restrictions under the Prospectus Regulation" above.

# Uruguay

The Securities have not been registered with the Central Bank of Uruguay and will not be offered or sold in Uruguay through public offerings.

# Venezuela

The Securities may not be offered to the public in Venezuela and may not be sold or offered in Venezuela in any manner that may be construed as a public offering, as determined under Venezuelan securities laws. The Securities may be sold by means of a private offer through sales that do not constitute a public offering, as determined under Venezuelan securities laws.

## XII. GENERAL INFORMATION

# 1. Responsibility for the information in this Base Prospectus

Goldman, Sachs & Co. Wertpapier GmbH, Marienturm, Taunusanlage 9-10, 60308 Frankfurt am Main, as Issuer, and Goldman Sachs Bank Europe SE Marienturm, Taunusanlage 9-10, 60308 Frankfurt am Main as Offeror accept responsibility for the information provided in this Base Prospectus. The Issuer and the Offeror furthermore declare that the information contained in this Base Prospectus is, to the best of their knowledge, in accordance with the facts and that this Base Prospectus makes no omission likely to affect its import.

The Goldman Sachs Group, Inc., 200 West Street, New York, NY 10282, United States, as Guarantor, accepts responsibility the information provided in this Base Prospectus. It declares that the information contained in this Base Prospectus is, to the best of its knowledge, in accordance with the facts and that this Base Prospectus makes no omission likely to affect its import.

# 2. Information from third parties

The Issuer confirms that where information in this Base Prospectus has been sourced from third parties, such information has been accurately reproduced and that as far as the Issuer is aware and is able to ascertain from the information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading. If additional information in the Final Terms has been sourced from third parties, the source from which such information has been obtained is mentioned in each case at the corresponding location.

# 3. Approval by the competent authority

The Issuer makes the following statements:

- (a) This Base Prospectus was approved by the German Federal Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht) as competent authority (the "Competent Authority") under Regulation (EU) 2017/1129.
- (b) The Competent Authority only approves this Base Prospectus with regard to the standards of completeness, comprehensibility and coherence set out in the Regulation (EU) 2017/1129.
- (c) The approval should not be seen as a confirmation with respect to the quality of the securities which are subject of this Base Prospectus.
- (d) Investors should make their own assessment of the suitability of these securities for their investment.

# 4. Availability of the Base Prospectus

This Base Prospectus is published in accordance with Article 8 in connection with Article 21 of the Prospectus Regulation and Article 10 of the Commission Delegated Regulation (EU) 2019/979. The Final Terms of the Securities to the extent possible will be published before the start of the public offering in accordance with Article 8 Para. 5 in connection with Article 21 Prospectus Regulation. This Base Prospectus, any supplements thereto, the documents incorporated by reference as well as the Final Terms will be published in electronic form on www.gs.de/en (see www.gs.de/en/services/documents/base-prospectus and/or relevant product

site retrievable by entering the relevant securities identification number for the respective Security in the search field) and/or on any other website set out in the applicable Final Terms.

In addition, the documents will be made available by the Issuer on request and free of charge on a durable data medium or, if explicitly requested, in paper form.

# 5. Consent to use the Prospectus

If the relevant Final Terms provided for that the Issuer consents, to the extent and under the conditions, if any, as specified in the relevant Final Terms, to the use of the Base Prospectus and accept responsibility for the content of the Base Prospectus also with respect to subsequent resale or final placement of Securities by any financial intermediary which was given consent to use the Base Prospectus. Such consent is given for the duration of the Offer Period specified in the applicable Final Terms. In the case of an Offer Period which exceeds the duration of the validity of the Base Prospectus, the subsequent resale and final placement of the Securities by financial intermediaries can be made during the period in which a Succeeding Base Prospectus (as defined in the relevant Final Terms) exists. In this case, the consent to the use of the Base Prospectus also applies to the use of the Succeeding Base Prospectus. Such consent may, as specified in the relevant Final Terms, be given for the duration of the Offer Period specified in the relevant Final Terms to:

- (a) all financial intermediaries (general consent) and for all Offer States; or
- (b) one or more specified financial intermediaries (individual consent) and either
  - (i) for all Offer States; or
  - (ii) for selected Offer States only.

"Offer States" means one or more of the following Member States, as specified in the relevant Final Terms: Germany Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, The Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, and/or Switzerland.

The above consent is subject to compliance with the selling restrictions applicable to the Securities and with any applicable law. Each financial intermediary is obliged to only provide the Base Prospectus together with any supplement thereto (if any) to any potential investor.

In the event that a financial intermediary makes an offer, that financial intermediary will inform investors at the time the offer is made of the terms and conditions of the offer as set out in the Final Terms.

If the relevant Final Terms state that the consent to use the Base Prospectus is given to all financial intermediaries in the respective Offer States (general consent), any financial intermediary using the Base Prospectus has to state on its website that it uses the Base Prospectus with the consent of the Issuer and in accordance with the conditions attached thereto.

If the relevant Final Terms state that the consent to use the Base Prospectus is given to one or more specified financial intermediaries in the respective Offer States (individual consent), any new information with respect to financial intermediaries unknown at the time of the approval of the Base Prospectus or the filing of the relevant Final Terms will be

published on the website www.gs.de/en/services/documents/announcements for investors in Germany and/or www.gsmarkets.at/en/services/documents/announcements for investors in Austria and/or www.gsmarkets.nl/nl/over-ons/documenten/aankondigingen for investors in the Netherlands and/or www.gsmarkets.fr/fr/services/documents/announces for investors in France and/or www.gsmarkets.be/nl/over-ons/documenten/aankondigingen investors in Belgium and/or www.gspip.info for investors in Liechtenstein and Luxembourg.

The relevant Final Terms may also provide that the consent to use the Base Prospectus is not given.

# 6. Information incorporated by reference

Reference is made in the Base Prospectus in accordance with Article 19 paragraph 1 of the Prospectus Regulation to information which represent an integral part of the Base Prospectus. The information so incorporated by reference into the Base Prospectus is in each case identified in the following tables and by designation of the document (including section and page number) in which the respective information is contained.

DOCU	MENT / SECTION	INCORPORATED PAGE(S) OF THE DOCUMENT*	SECTION / PAGE IN THE BASE PRO SPECTUS	
GSW Registration Document				
A. Risk Factors relating to GSW				in
I.	Risk of Creditworthness	pages 3 - 5	connection with the Issuer / 12	the
II.	Business Risks	page 5	155461 / 12	
III.	Operational Risks	page 5		
C. Information about Goldman, Sachs & Co. Wertpapier GmbH		information about	Important about the	
I.	Statutory auditors	page 8	Issuer / 384	
II.	General information	page 8		
III.	Business overview	pages 9 - 10		
IV.	Organisational structure	page 10		
V.	Trend information	pages 10 - 11		
VI.	Management and legal representation	page 11		
VII.3	3. Auditing of historical financial information	page 12		
VII.	Legal and arbitration proceedings	page 12		
VII.	5. Significant change in GSW's financial position	page 12		
VII.	5. Statements in relation to prospects, financial performance or financial position	pages 12 - 13		

VIII. Additional information	page 13		
IX. Material contracts	page 13		
X. Documents available	page 14		
First Supplement to the GSW Registration Document			
Information contained in the First Supplement to the GSW Registration Document	pages 2 - 4	VII. information Issuer / 384	Important about the
GSW Half Year Report 2022			
Business and General Conditions	page 3	VII. Impormation about / 384	tant infor- t the Issuer
Control System	page 3		
Results of Operations	page 3		
Net Assets and Financial Position	page 4		
Risk Report	pages 4 - 5		
Balance Sheet	page 6		
Income Statement	page 7		
Cash Flow Statement	page 8		
Statement of Changes in Equity	page 9		
Notes to the Financial Statements	pages 10 - 14		
GSW Annual Report 2021			
Auditor's Report	pages 3 - 10	VII. information Issuer / 384	Important about the
Management Report for the Financial Year 2021	pages 13 - 16 (except for section <i>Prognose-und Chancenbericht</i> , pages 14 - 15)		
Balance Sheet	page 17		
Profit and Loss Account Statement	page 18		
Cash Flow Statement	page 19		
Statement of Changes in Equity	page 20		
Notes to the Financial Statements	pages 21 - 25		
GSW Annual Report 2020			
Balance Sheet	page 10	VII. information Issuer / 384	Important about the

Profit and Loss Account Statement	page 11
Cash Flow Statement	page 11
Statement of Changes in Equity	page 11
Notes to the Financial Statements	pages 13 - 17
Auditor's Report	pages 19 - 27

<sup>\*</sup> The page numbers referenced above relate to the order in which the pages appear in the PDF version of such document.

Information required by the	Document (Incorporated page(s) of	Page(s) in the Base
<b>Delegated Regulation</b>	the Document)*	Prospectus
	Information, Expert's Reports and Co	mpetent Authority Ap-
proval		
Persons responsible, Third Party	GSG Base Prospectus (Page 3 (Re-	Page 385
Information, Expert's Reports	sponsibility Statement), Pages 143-145	
and Competent Authority Ap-	(10 <sup>th</sup> paragraph under <i>Listing and Gen</i> -	
proval (Annex 6, Section 1 Dele-	eral Information), Cover Page (5th par-	
gated Regulation)	agraph))	
Statutory auditors		
Statutory Auditors (Annex 6,	GSG Base Prospectus (Page 144 (Inde-	Page 385
Section 2 Delegated Regulation)	pendent Registered Public Accounting	
	Firm), Page 225)	
Risk factors		
Risk factors (Annex 6, Section	GSG Base Prospectus (Pages 12-14	Page 12
3.1 Delegated Regulation)	(Risk Factors in Relation to the Is-	
	suer))	
	Form 10-K 2021 (Pages 32 (except for	
	the first and second paragraph) - 58	
	(Risk Factors))	
Information about the Guaranton		
History and development of the	Form 10-K 2021 (Page 4 (Business -	Page 385
Guarantor (Annex 6, Section 4.1	Introduction))	
Delegated Regulation)		
The place of registration of the	GSG Base Prospectus (Page 8 (Row	Page 385
Guarantor, its registration num-	LEI under Overview of the Program),	
ber and legal entity identifier	Pages 143-145 (9 <sup>th</sup> and 10 <sup>th</sup> paragraph	

('LEI') (Annex 6, Section 4.1.2 Delegated Regulation)  The date of incorporation and the length of life of the issuer, except where the period is indefinite (Annex 6, Section 4.1.3 Delegated Regulation)	under Listing and General Information))  GSG Base Prospectus (Page 143 (9 <sup>th</sup> paragraph under Listing and General Information))	Page 385
The domicile and legal form of the Guarantor, the legislation under which the Guarantor operates, its country of incorporation, the address, telephone number of its registered office (or principal place of business if different from its registered office) and website of the Guarantor, if any, with a disclaimer that the information on the website does not form part of the prospectus unless that information is incorporated by reference into the prospectus (Annex 6, Section 4.1.4 Delegated Regulation)	GSG Base Prospectus (Pages 143-145 (9th and 10th paragraph under Listing and General Information))  Form 10-K 2021 (Page 4 (Business - Introduction))	Page 385
Details of any recent events particular to the Guarantor and which are to a material extent relevant to an evaluation of the Guarantor's solvency (Annex 6, Section 4.1.5 Delegated Regulation)	Form 10-K 2021 (Pages 61-119 (Management's Discussion and Analysis of Financial Condition and Results of Operations))	Page 385
Credit ratings assigned to the Guarantor at the request or with the cooperation of the Guarantor in the rating process (Annex 6, Section 4.1.6 Delegated Regulation)	GSG Base Prospectus (Page 45 ( <i>Credit Ratings</i> ))  Form 10-K 2021 (Pages 103-104 ( <i>Credit Ratings</i> ))	Page 385
Information on the material changes in the issuer's borrowing or funding structure since the last	Form 10-K 2021 (Pages 82-85 (Balance Sheet and Funding Sources)), Pages 124-127 (Consolidated Statements of Earnings, Consolidated	Page 385

financial year (Annex 6, Section 4.1.7 Delegated Regulation)	Statements of Comprehensive Income, Consolidated Balance Sheets, Consoli- dated Statements of Changes in Share- holders' Equity, Consolidated State- ments of Cash Flows), Pages 179-183 (Unsecured Borrowings, Other Liabil- ities))	
Description of the expected financing of the Guarantor's activities (Annex 6, Section 4.1.8 Delegated Regulation)	Form 10-K 2021 (Pages 82-85 (Balance Sheet and Funding Sources))	Page 385
Business overview		
Principal activities (Annex 6, Section 5.1.1 Delegated Regulation)	Form 10-K 2021 (Pages 4-8 (Business – Introduction, Our Business Segments), Page 128 (Description of Business))	Page 385
Principal markets (Annex 6, Section 5.1.1 Delegated Regulation)	Form 10-K 2021 (Pages 12-13 (Competition), Page 60 (Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities), Page 211 (Geographic Information))	Page 385
Organizational structure		
Organizational structure (Annex 6, Section 6 Delegated Regulation)	GSG Base Prospectus (Page 47 (We are a Holding Company))  Form 10-K 2021 (Page 38 (Group Inc. is a holding company and its liquidity depends on payments from its subsidiaries, many of which are subject to legal, regulatory and other restrictions on providing funds or assets to Group Inc.), Exhibit 21.1 (Significant Subsidiaries of the Registrant))	Page 385
Trend information		

Trend information (Annex 6, Section 7 Delegated Regulation)	GSG Base Prospectus (Page 144 the 3 <sup>rd</sup> last paragraph on this page ( <i>Material Adverse or Significant Changes and Legal Proceedings</i> ))	Page 385
	Form 10-K 2021 (Pages 61-119 (Management's Discussion and Analysis of Financial Condition and Results of Operations))	
	Form 10-Q Third Quarter 2022 (Pages 107-171 (Management's Discussion and Analysis of Financial Condition and Results of Operations))	
	Form 8-K 17 January 2023 (Exhibit 99.1, Pages 5-13)	
Administrative, management and	supervisory bodies	
Administrative, management and supervisory bodies, including conflicts of interest (Annex 6, Section 9 Delegated Regulation)	Proxy Statement 2022 (Pages 12-37 (Corporate Governance Highlights and Corporate Governance), Pages 90-92 (Certain Relationships and Related Transactions))  Form 10-K 2021 (Pages 28-29 (Infor-	Page 385
	mation about our Executive Officers))	
Major Shareholders		
Beneficial owners (Annex 6, Section 10 Delegated Regula- tion)	Proxy Statement 2022 (Page 95 (Beneficial Owners of More Than Five Percent))	Page 385
Financial information		
Audited historical financial information for the fiscal years ended 31 December 2021 and 31 December 2020 (Annex 6, Section 11.1-11.7 Delegated Regulation)	Form 10-K 2021 (Pages 124-229 (Consolidated Statements of Earnings, Consolidated Statements of Comprehensive Income, Consolidated Balance Sheets, Consolidated Statements of Changes in Shareholders' Equity, Consolidated Statements of Cash	Page 385
	Flows, Notes to Consolidated	

	Financial Statements, Supplemental Financial Information))	
Audit report (Annex 6, Section 11.1 Delegated Regulation)	Form 10-K 2021 (Pages 121-123 (Report of Independent Registered Public Accounting Firm))	Page 385
Balance sheet (Annex 6, Section 11.1 Delegated Regulation)	Form 10-K 2021 (Page 125 (Consolidated Balance Sheets))	Page 385
Income statement (Annex 6, Section 11.1 Delegated Regulation)	Form 10-K 2021 (Page 124 (Consolidated Statements of Earnings))	Page 385
Cash flow statement (Annex 6, Section 11.1 Delegated Regulation)	Form 10-K 2021 (Page 127 (Consolidated Statements of Cash Flows))	Page 385
Accounting policies and explanatory notes (Annex 6, Section 11.1 Delegated Regulation)	Form 10-K 2021 (Pages 63-65 (Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies), Pages 128-229 (Notes to Consolidated Financial Statements, Supplemental Financial Information))	Page 385
Unaudited Interim and other financial information (Annex 6, Section 11.2 Delegated Regulation)	Form 10-Q Third Quarter 2022 (Pages 3-106 (Financial Statements (Unaudited), Notes to Consolidated Financial Statements (Unaudited), Report of Independent Registered Public Accounting Firm, Statistical Disclosures))	Page 385
	Supplement No. 5 to the GSG Base Prospectus (Pages 1 - 2; Section "Unaudited Interim Selected Financial Information")	

Balance sheet (Annex 6, Section 11.2 Delegated Regulation)	Form 10-Q Third Quarter 2022 (Page 4 (Consolidated Balance Sheets (Unaudited))) Form 8-K 17 January 2023 (Exhibit 99.1, Page 18)	Page 385
Income statement (Annex 6, Section 11.2 Delegated Regulation)	Form 10-Q Third Quarter 2022 (Page 3 (Consolidated Statements of Earnings (Unaudited))) Form 8-K 17 January 2023 (Exhibit 99.1, Pages 16-17)	Page 385
Cash flow statement (Annex 6, Section 11.2 Delegated Regulation)	Form 10-Q Third Quarter 2022 (Page 6 (Consolidated Statements of Cash Flows (Unaudited)))	Page 385
Accounting policies and explanatory notes (Annex 6, Section 11.2 Delegated Regulation)	Form 10-Q Third Quarter 2022 (Pages 7-106 (Notes to Consolidated Financial Statements (Unaudited), Report of Independent Registered Public Accounting Firm, Statistical Disclosures))	Page 385
Legal and arbitration proceedings (Annex 6, Section 11.4 Delegated Regulation)	Form 10-K 2021 (Page 59 (Legal Proceedings), Pages 212-221 (Legal Proceedings))  Form 10-Q Third Quarter 2022 (Pages 91-103 (Legal Proceedings))  Supplement No. 5 to the GSG Base Prospectus (Page 2; the second bullet point on this page)	Page 385
Significant change in the Guarantor's financial position (Annex 6, Section 11.5.1 Delegated Regulation)	Supplement No. 5 to the GSG Base Prospectus (Page 2; the first bullet point on this page)	Page 385
Additional information		
Share capital (Annex 6, Section 12.1 Delegated Regulation)	Form 10-K 2021 (Page 126 (Consolidated Statements of Changes in	Page 385

	Shareholders' Equity), Pages 192-194 (Shareholders' Equity))  Form 10-Q Third Quarter 2022 (Page 5 (Consolidated Statements of Changes in Shareholders' Equity (Unaudited)), Pages 74-77 (Shareholders' Equity))	
Memorandum and Articles of Association (Annex 6, Section 12.2 Delegated Regulation)	GSG Base Prospectus (Page 143 (9 <sup>th</sup> paragraph under <i>Listing and General Information</i> and Page 144 subsection <i>Documents Available for Review</i> ))	Page 385
Material Contracts (Annex 6, Section 13.1 Delegated Regulation)	Form 10-K 2021 (Pages 179-183 (Notes to Consolidated Financial Statements – Note 14. Unsecured Borrowings and Note 15. Other Liabilities))	Page 385
Documents Available (Annex 6, Section 14.1 Delegated Regulation)	GSG Base Prospectus (Page 144 (Documents Available for Review))	Page 385

<sup>\*</sup> The page numbers referenced above relate to the order in which the pages appear in the PDF version of such document.

In addition thereto, in this Base Prospectus reference is made to the Securities Note dated 8 July 2020 that forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes and Warrants) dated 8 July 2020 and to the Securities Note dated 10 February 2021 that forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes and Warrants) dated 10 February 2021 or to the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 pursuant to Article 19 paragraph 1 of the Prospectus Regulation from which the following information is incorporated by reference into this Base Prospectus:

SECTION OF THE BASE	INCORPORATED	SECTION / PAGE(S) IN
PROSPECTUS DATED	PAGE(S) OF THE BASE	THE BASE PROSPECTUS
8 JULY 2020	PROSPECTUS DATED	
	8 JULY 2020	
- IV. General Conditions	pages 124 – 317	IV. General Conditions / page 133
- V. Form of Issue Specific Terms	pages 318 – 368	V. Form of Issue Specific Terms / page 325

VIII E CE' 17E	276 204	VIII E CE' 1 T
- VIII. Form of Final Terms	pages 376 - 384	VIII. Form of Final Terms /
		page 386
SECTION OF THE BASE	INCORPORATED	SECTION / PAGE(S) IN
PROSPECTUS DATED	PAGE(S) OF THE BASE	THE BASE PROSPECTUS
10 FEBRUARY 2021	PROSPECTUS DATED	
	10 FEBRUARY 2021	
- IV. General Conditions	pages 124 – 313	IV. General Conditions / page 133
- V. Form of Issue Specific Terms	pages 314 – 364	V. Form of Issue Specific Terms / page 325
- VIII. Form of Final Terms	pages 373 - 383	VIII. Form of Final Terms / page 386
SECTION OF THE BASE	INCORPORATED	SECTION / PAGE(S) IN
PROSPECTUS DATED	PAGE(S) OF THE BASE	THE BASE PROSPECTUS
9 FEBRUARY 2022	PROSPECTUS DATED 9	
	FEBRUARY 2022	
- IV. General Conditions	pages 126 – 323	IV. General Conditions / page 133
- V. Form of Issue Specific Terms	pages 324 – 375	V. Form of Issue Specific Terms / page 325
- IX. Form of Final Terms	pages 385 – 395	IX. Form of Final Terms / page 386

Where reference is only made to specific sections/pages of a document, only the information contained in those sections or pages shall be part of this Base Prospectus, while the rest of the information contained in the relevant document is either not relevant for the investor or already included elsewhere in this Base Prospectus.

The aforementioned documents from which information is incorporated by reference are all published on the following websites:

DOCUMENT	WEBSITE
GSG Base Prospectus	https://www.bourse.lu/programme/Programme-Gol-SachsGr/13706
Form 10-K 2021	https://www.goldmansachs.com/investor-relations/financials/10k/2021/2021-10-k.pdf
Proxy Statement 2022	https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2022/2022-proxy-statement-pdf.pdf

Supplement No. 5 to the GSG Base Prospectus	https://www.bourse.lu/programme-documents/Programme-GolSachsGr/13706
Form 10-Q Third Quarter 2022	https://www.goldmansachs.com/investor-relations/financials/10q/2022/third-quarter-2022-10-q.pdf
Form 8-K 17 January 2023	https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-01-17-23.pdf
GSW Registration Document	https://www.gs.de/en/services/documents/registration
First Supplement to the GSW Registration Document	https://www.gs.de/en/services/documents/registration
GSW Half Year Report 2022	https://www.goldmansachs.com/investor-relations/fi- nancials/subsidiary-financial-info/gsw/Wertpapier- HY22-de.pdf
	(the unofficial English translation thereof has been published on the website and can be downloaded under the following link:
	https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsw/Wertpapier-HY22-en.pdf)
GSW Annual Report 2021	https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsw/WERT_Financial_State-ments_2021_de.pdf
	(the unofficial English translation thereof has been published on the website and can be downloaded under the following link:
	https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial- info/gsw/WERT_Financial_State- ments_2021_en.pdf)
GSW Annual Report 2020	https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsw/Financials-2020-FY-de.pdf
	(the unofficial English translation thereof has been published on the website and can be downloaded under the following link:

	https://www.goldmansachs.com/investor-relations/financials/subsidiary-financial-info/gsw/Financials-2020-FY-en.pdf)
Securities Note dated 10 February 2021 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021	https://assets.ctfas- sets.net/42ch7ol4g0tf/1YyCl6YLxFBy3xT2mymZF M/68dac1858bd7ac8f8871a9010f35bfed/21- 02_11_210210_GSW_GSG_Securi- ties_Note_sv5.pdf
Securities Note dated 8 July 2020 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes and Warrants) dated 8 July 2020	https://assets.ctfas- sets.net/42ch7ol4g0tf/4sK4QWFDHdR2fUTA4xuiQi /25fbd769672e1b016ab053753f0b0691/20- 07 10 200708 GSW GSG Securi- ties Note_sv3.pdf
Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022	https://assets.ctfas- sets.net/42ch7ol4g0tf/5AYizYAAey- kbrnTbgE9VuL/dc24f2cad4c44042ef79218dd6c8590 7/22-02-09-220209 GSW GSG_Base_Prospec- tus_v4.pdf

#### 7. Continuation of the public offer and increases of Securities

Under this Base Prospectus the public offer is being continued for the following Securities which have been originally issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes and Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes and Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022:

| ISIN         |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| NL0015337486 | NLGS0000OGD4 | NLGS00016XB2 | NLGS000250M0 | NLGS000269G2 | NLGS00027DL0 | NLGS000287I0 | NLGS00028JI1 | NLGS00028PE7 | NLGS00028SX1 |
| NL0015433228 | NLGS0000OGG7 | NLGS000175A4 | NLGS000250N8 | NLGS000269H0 | NLGS00027D74 | NLGS00028793 | NLGS00028JD2 | NLGS00028PB3 | NLGS00028SW3 |
| NL0015289232 | NLGS0000OQ42 | NLGS00017KQ5 | NLGS000250O6 | NLGS000269N8 | NLGS00027D82 | NLGS000287L4 | NLGS00028J93 | NLGS00028PH0 | NLGS00028RU9 |
| NL0015292913 | NLGS0000OQ59 | NLGS00017K93 | NLGS000250X7 | NLGS000269O6 | NLGS00027BP5 | NLGS000287M2 | NLGS00028JP6 | NLGS00028PG2 | NLGS00028RO2 |
| NL0015292921 | NLGS0000OQ67 | NLGS00017KA9 | NLGS000250Y5 | NLGS000269P3 | NLGS00027EU9 | NLGS000287G4 | NLGS00028JQ4 | NLGS00028PI8 | NLGS00028TC3 |
| NL0015295767 | NLGS0000OTZ0 | NLGS00017KB7 | NLGS00025138 | NLGS000268D1 | NLGS00027HT4 | NLGS000287C3 | NLGS00028JL5 | NLGS00028PN8 | NLGS00028TB5 |
| NL0015295775 | NLGS0000P0M3 | NLGS00017KD3 | NLGS000250R9 | NLGS000268E9 | NLGS00027I53 | NLGS000287F6 | NLGS00028K33 | NLGS00028PM0 | NLGS00028SJ0 |
| NL0015295783 | NLGS0000P0O9 | NLGS00017KE1 | NLGS00025443 | NLGS000268F6 | NLGS00027I61 | NLGS00028835 | NLGS00028K90 | NLGS00028PR9 | NLGS00028SK8 |
| NL0015309840 | NLGS0000P721 | NLGS00017KF8 | NLGS00025DI0 | NLGS000268G4 | NLGS00027I79 | NLGS000288A5 | NLGS00028K74 | NLGS00028PO6 | NLGS00028SO0 |
| NL0015309857 | NLGS0000PCU4 | NLGS00017KG6 | NLGS00025II9 | NLGS000268H2 | NLGS00027ID6 | NLGS000288H0 | NLGS00028JW2 | NLGS00028PV1 | NLGS00028SN2 |
| NL0015320656 | NLGS0000QR07 | NLGS00017KI2 | NLGS00025KK1 | NLGS000268I0 | NLGS00027IE4 | NLGS00028801 | NLGS00028JV4 | NLGS00028Q60 | NLGS00028SV5 |
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The Final Terms for the above mentioned Securities will be published on the websites www.gs.de/en and/or www.gsmarkets.at/en for investors in Germany and Austria and/or www.gspip.info for investors in Liechtenstein and Luxembourg and/or www.gsmarkets.nl for investors in The Netherlands, France and Belgium (see relevant product site - retrievable by entering the relevant securities identification number for the respective Security in the search field).

In addition, under this Base Prospectus dated 3 February 2023 (as supplemented from time to time) Final Terms may be prepared in order to increase the issue size of Securities, which will be issued under this Base Prospectus dated 3 February 2023 and/or which have been issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022.

For the purpose of the continuation of the public offer and in the case of an increase of the issue size of the Securities, which have been issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 or the Base Prospectus for Securitites (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022, (i) the General Conditions and the Form of Issue Specific Terms of the Securities Note dated 8 July 2020 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020 and/or (ii) the General Conditions and the Form of Issue Specific Terms of the Securities Note dated 10 February 2021 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 and/or (iii) the General Condistions and the Form of Issue Specific Terms of the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 are incorporated by reference into this Base Prospectus (see above section "XII.6. Information incorporated by reference"). Furthermore, for the purposes of the continuation of the public offer of the Securities, which have been issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020 and/or the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 and/or the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022, the Form of Final Terms of the Securities Note dated 8 July 2020 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020 and/or the Form of Final Terms of the Securities Note dated 10 February 2021 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 and/or the Form of Final Terms of the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 are incorporated by reference into this Base Prospectus (see above section "XII.6. Information incorporated by reference").

In the case of (i) a continuation of a public offer of Securities which have been initially offered to the public under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020 and/or (ii) an increase of the issue size of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020, the General Conditions and the Form of Issue Specific Terms of the Securities Note dated 8 July 2020 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 8 July 2020 shall apply instead of the General Conditions and the Form of Issue Specific Terms of this Base Prospectus.

In the case of (i) a continuation of a public offer of Securities which have been initially offered to the public under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 and/or (ii) an increase of the issue size of Securities issued under the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021, the General Conditions and the Form of Issue Specific Terms of the Securities Note dated 10 February 2021 which forms part of the Base Prospectus consisting of separate documents for Securities (issued in the form of Certificates, Notes or Warrants) dated 10 February 2021 shall apply instead of the General Conditions and the Form of Issue Specific Terms of this Base Prospectus.

In the case of (i) a continuation of a public offer of Securities which have been initially offered to the public under the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022 and/or (ii) an increase of the issue size of Securites issued under the Base Prospectus for Securities (issued in the form of Certificates, Notes or Warrants) dated 9 February 2022, the General Conditions and the Form of Issue Specific Terms of the Base Prospectus dated 9 February 2022 shall apply instead of the General Conditions and the Form of Issue Specific Terms of this Base Prospectus.