Prospectus Supplement No. 9 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 9 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"), Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3"), Prospectus Supplement No. 4, dated August 4, 2023 ("Supplement No. 4"), Prospectus Supplement No. 5, dated September 21, 2023 ("Supplement No. 5"), Prospectus Supplement No. 6, dated October 18, 2023 ("Supplement No. 6"), Prospectus Supplement No. 7, dated November 6, 2023 ("Supplement No. 7") and Prospectus Supplement No. 8, dated January 16, 2024 ("Supplement No. 8"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6, Supplement No. 7 or Supplement No. 8, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6, Supplement No. 7 and Supplement No. 8, relating to the information included in the Base Prospectus, since the publication of Supplement No. 8.

This Prospectus Supplement incorporates by reference:

- the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, dated February 22, 2024 (the "2023 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on February 23, 2024.

A copy of the 2023 Form 10-K, including Exhibit 21.1 has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

In addition:

- The text under the heading "*Risk Factors in Relation to the Issuer*" on pages 12 to 14 of the Base Prospectus is hereby deleted and replaced with the following:

  Market Risks

  See the following risk factors as incorporated by reference from the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, dated February 22, 2024 (the "2023 Form 10-K"), in the following order:

  (a) Our businesses have been and may in the future be adversely affected by conditions in the global financial markets and broader economic conditions. (pages 33-34 of the 2023 Form 10-K);

  (b) Our businesses have been and may in the future be adversely affected by declining asset values, particularly where we have net "long" positions, receive fees based on the value of assets managed, or receive or post collateral. (pages 34-35 of the 2023 Form 10-K);

  (c) Our market-making activities have been and may in the future be affected by changes in the levels of market volatility. (page 35 of the 2023 Form 10-K);

  (d) Our investment banking, client intermediation, asset management and wealth management businesses have been adversely affected and may in the future be adversely

affected by market uncertainty or lack of confidence among investors and CEOs due to declines in economic activity and other unfavorable economic, geopolitical or market conditions. (page 35 of the 2023 Form 10-K);

(e) Our asset management and wealth management businesses have been and may in the future be adversely affected by the poor investment performance of our investment products or a client preference for products other than those which we offer or for products that generate lower fees. (page 36 of the 2023 Form 10-K); and

(f) Inflation has had, and could continue to have, a negative effect on our business, results of operations and financial condition. (page 36 of the 2023 Form 10-K).

Liquidity Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) Our liquidity, profitability and businesses may be adversely affected by an inability to access the debt capital markets or to sell assets. (page 36 of the 2023 Form 10-K);

(b) Our businesses have been and may in the future be adversely affected by disruptions or lack of liquidity in the credit markets, including reduced access to credit and higher costs of obtaining credit. (page 37 of the 2023 Form 10-K);

(c) Reductions in our credit ratings or an increase in our credit spreads may adversely affect our liquidity and cost of funding. (page 37 of the 2023 Form 10-K); and

(d) Group Inc. is a holding company and its liquidity depends on payments and loans from its subsidiaries, many of which are subject to legal, regulatory and other restrictions on providing funds or assets to Group Inc. (page 38 of the 2023 Form 10-K).

Credit Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) Our businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of or defaults by third parties. (pages 38-39 of the 2023 Form 10-K);

(b) Concentration of risk increases the potential for significant losses in our market-making, underwriting, investing and financing activities. (page 39 of the 2023 Form 10-K); and

(c) Derivative transactions and delayed documentation or settlements may expose us to credit risk, unexpected risks and potential losses. (page 40 of the 2023 Form 10-K).

Operational Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) A failure in our operational systems or human error, malfeasance or other misconduct, could impair our liquidity, disrupt our businesses, result in the disclosure of confidential information, damage our reputation and cause losses. (pages 40-41 of the 2023 Form 10-K);

(b) A failure or disruption in our infrastructure, or in the operational systems or infrastructure of third parties, could impair our liquidity, disrupt our businesses, damage our reputation and cause losses. (page 42 of the 2023 Form 10-K);

(c) The development and use of artificial intelligence (AI) present risks and challenges that may adversely impact our business. (page 43 of the 2023 Form 10-K);

(d) A failure to protect our computer systems, networks and information, and our clients' information, against cyber attacks and similar threats could impair our ability to conduct our businesses, result in the disclosure, theft or destruction of confidential information, damage our reputation and cause losses. (pages 43-44 of the 2023 Form 10-K); and

(d) We may incur losses as a result of ineffective risk management processes and strategies. (page 45 of the 2023 Form 10-K).

Legal and Regulatory Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) Our businesses and those of our clients are subject to extensive and pervasive regulation around the world. (pages 46-48 of the 2023 Form 10-K);

(b) A failure to appropriately identify and address potential conflicts of interest could adversely affect our businesses. (page 48 of the 2023 Form 10-K);

(c) We may be adversely affected by increased governmental and regulatory scrutiny or negative publicity. (page 49 of the 2023 Form 10-K);

(d) Substantial civil or criminal liability or significant regulatory action against us could have material adverse financial effects or cause us significant reputational harm, which in turn could seriously harm our business prospects. (pages 49-50 of the 2023 Form 10-K);

(e) In conducting our businesses around the world, we are subject to political, legal, regulatory and other risks that are inherent in operating in many countries. (pages 50-51 of the 2023 Form 10-K);

(f) The application of regulatory strategies and requirements in the U.S. and in non-U.S. jurisdictions to facilitate the orderly resolution of large financial institutions could create greater risk of loss for Group Inc.'s security holders. (pages 51-52 of the 2023 Form 10-K);

(g) The application of Group Inc.'s proposed resolution strategy could result in greater losses for Group Inc.'s security holders. (pages 52-53 of the 2023 Form 10-K); and

(h) Our commodities activities, particularly our physical commodities activities, subject us to extensive regulation and involve certain potential risks, including environmental, reputational and other risks that may expose us to significant liabilities and costs. (page 53 of the 2023 Form 10-K).

Competition Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) Our results have been and may in the future be adversely affected by the composition of our client base. (page 54 of the 2023 Form 10-K);

(b) The financial services industry is highly competitive. (page 54 of the 2023 Form 10-K);

(c) The growth of electronic trading and the introduction of new products and technologies, including trading and distributed ledger technologies, including cryptocurrencies, has increased competition. (page 55 of the 2023 Form 10-K); and

(d) Our businesses would be adversely affected if we are unable to hire and retain qualified employees. (pages 55-56 of the 2023 Form 10-K).

Market Developments and General Business Environment Risks

See the following risk factors as incorporated by reference from the 2023 Form 10-K, in the following order:

(a) Our businesses, financial condition, liquidity and results of operations have been and may in the future be adversely affected by unforeseen or catastrophic events, including pandemics, terrorist attacks, wars, extreme weather events or other natural disasters. (page 56 of the 2023 Form 10-K);

(b) Climate change could disrupt our businesses and adversely affect client activity levels and the creditworthiness of our clients and counterparties, and our actual or perceived action or inaction relating to climate change could result in damage to our reputation. (page 56 of the 2023 Form 10-K);

(c) Our business, financial condition, liquidity and results of operations have been adversely affected by disruptions in the global economy caused by conflicts, and related sanctions and other developments. (page 57 of the 2023 Form 10-K);

(d) Certain of our businesses and our funding instruments may be adversely affected by changes in reference rates, currencies, indexes, baskets or ETFs to which products we offer or funding that we raise are linked. (page 57 of the 2023 Form 10-K);

(e) Our business, financial condition, liquidity and results of operations may be adversely affected by disruptions in the global economy caused by escalating tensions between the U.S. and China. (page 58 of the 2023 Form 10-K);

(f) We face enhanced risks as we operate in new locations and transact with a broader array of clients and counterparties. (pages 58-59 of the 2023 Form 10-K); and

(g) We may not be able to fully realize the expected benefits or synergies from acquisitions or other business initiatives in the time frames we expect, or at all. (page 59 of the 2023 Form 10-K).

- The section entitled "*Unaudited Interim Selected Financial Information*" added to page 46 of the Base Prospectus by Supplement No. 2, Supplement No. 4 and Supplement No. 7 is hereby deleted.

- The text under the heading "*Material Adverse or Significant Changes and Legal Proceedings*" on pages 148 to 149 of the Base Prospectus, is hereby deleted in its entirety and replaced with the following:

  There has been no material adverse change in the prospects of The Goldman Sachs Group, Inc. since December 31, 2023.

  There has been no significant change in the financial position or financial performance of The Goldman Sachs Group, Inc. subsequent to December 31, 2023.

  The Goldman Sachs Group, Inc. has not been involved in any governmental, legal or arbitration proceedings during the twelve months before the approval date of this Base Prospectus, as supplemented, which may have, or have had in the recent past, significant effects on The Goldman Sachs Group, Inc.'s financial position or profitability, except as may otherwise be indicated in Part II, Item 8: Financial Statements and Supplementary Data – Note 27: Legal Proceedings on pages 216 – 230 of our 2023 Form 10-K.

  In the foregoing statements required by the Prospectus Regulation, references to the "prospects", "financial performance" and "financial position" of the Issuer, are specifically to the ability of the Issuer to meet its full payment obligations under the notes in a timely manner. Material information about our financial condition and prospects is included in the periodic reports on Forms 10-K, 10-Q and 8-K which are incorporated by reference into this Base Prospectus.

- The following text is added immediately under the heading "*Italian Tax Treatment of the Notes*" on page 180 of the Base Prospectus:

  Tax changes

  Law No. 111 of 9 August 2023, published in the Official Gazette No. 189 of 14 August 2023 ("**Law 111**"), delegated the Italian Government to enact, within twenty-four months from its publication, one or more legislative decrees implementing the reform of the Italian tax system (the "**Tax Reform**").

  According to Law 111, the Tax Reform is expected to significantly change the tax regimes of financial instruments and capital markets. The nature, extent, and impact of these changes cannot be foreseen and/or assessed with certainty at the date of this Prospectus.

  As a result, the information provided in this Prospectus may not comply with the future tax landscape.

  Prospective purchasers of the notes should be aware that the prospected changes to the tax regime of interest income and capital gains could lead to an increased tax cost for the prospected purchasers of the notes and, consequently, result in a lower return of their investment.

  Prospective purchasers of the notes should consult their own tax advisors regarding the tax consequences described above.

- The text under the heading "*Wealth Tax*" on page 185 of the Base Prospectus is hereby deleted and replaced with the following:

  Pursuant to Article 19(18) of Law Decree No. 201 of 6 December 2011, Italian resident individuals, non-commercial entities and partnership and similar entities holding the notes abroad are required to pay a wealth tax (IVAFE) at a rate of 0.20% for each year. The IVAFE rate is increased to 0.40 per cent. in case of financial products held in states or territories listed as having a privileged tax regime under Ministerial Decree of 4 may 1999.

This tax is calculated on an annual basis on the market value of the notes at the end of the relevant year or – if no market value is available – the nominal value or the redemption value of such financial assets held abroad. Taxpayers are entitled to an Italian tax credit equivalent to the amount of any wealth tax paid in the State where the financial assets are held (up to an amount equal to the IVAFE due).

The 2023 Form 10-K is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the 2023 Form 10-K shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The 2023 Form 10-K will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the 2023 Form 10-K will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);
7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);
8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);
9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);
10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);
11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);
12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);
13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);
14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);
15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base

prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);
17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);
18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);
19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);
20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);
21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);
22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);
23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);
24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);
25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);
26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);
27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf);
28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023, which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf);
29. the Current Report on Form 8-K dated July 19, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on July 19, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf);
30. the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2023, dated August 2, 2023, which we filed with the SEC on August 3, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/second-quarter-2023-10-q.pdf); and
31. the Current Report on Form 8-K dated October 17, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on October 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-10-17-23.pdf);
32. the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023, dated November 3, 2023 (the "2023 Third Quarter Form 10-Q"), which we filed with the SEC on November 3, 2023

(accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/third-quarter-2023-10-q.pdf);

33. the Current Report on Form 8-K dated January 16, 2024, including Exhibit 99.1 thereto, which we filed with the SEC on January 16, 2024 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2024/8k-01-16-24.pdf); and

34. the 2023 Form 10-K, including Exhibit 21.1 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2023/2023-10-k.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2023 Form 10-K (pp. 31-59)
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2023 Form 10-K (pp. 62-123)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2023 Form 10-K (pp. 83-86, 128-131, 188-190)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2023 Form 10-K (pp. 83-86)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 1-5, 132)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 9-10, 61, 215)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (p. 38, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 62-123)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2023 Form 10-K (pp. 27-28)

Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2023 and December 31, 2022 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 125-239)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 125-127)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (p. 129)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 128-129)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (p. 131)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 64-67, 132-239)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 60, 216-230)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 130, 201-203)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 Form 10-K (pp. 188-190)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including February 28, 2024, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6, Supplement No. 7 and Supplement No. 8. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated February 26, 2024

Prospectus Supplement No. 8 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 8 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"), Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3"), Prospectus Supplement No. 4, dated August 4, 2023 ("Supplement No. 4"), Prospectus Supplement No. 5, dated September 21, 2023 ("Supplement No. 5"), Prospectus Supplement No. 6, dated October 18, 2023 ("Supplement No. 6") and Prospectus Supplement No. 7, dated November 6, 2023 ("Supplement No. 7"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6 or Supplement No. 7, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6 and Supplement No. 7, relating to the information included in the Base Prospectus, since the publication of Supplement No. 7.

This Prospectus Supplement incorporates by reference:

- the Current Report on Form 8-K dated January 16, 2024 (the "January 16 Form 8-K"), including Exhibit 99.1 ("Exhibit 99.1 to the January 16 Form 8-K"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on January 16, 2024.

A copy of the January 16 Form 8-K has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

The January 16 Form 8-K is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the January 16 Form 8-K shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The January 16 Form 8-K will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the January 16 Form 8-K will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);

5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);

6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);

7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);

27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf);

28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023, which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf);

29. the Current Report on Form 8-K dated July 19, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on July 19, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf);

30. the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2023, dated August 2, 2023, which we filed with the SEC on August 3, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/second-quarter-2023-10-q.pdf); and

31. the Current Report on Form 8-K dated October 17, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on October 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-10-17-23.pdf);

32. the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023, dated November 3, 2023 (the "2023 Third Quarter Form 10-Q"), which we filed with the SEC on November 3, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/third-quarter-2023-10-q.pdf); and

33. the January 16 Form 8-K, including Exhibit 99.1 thereto (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2024/8k-01-16-24.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)

Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 107-172) 2022 Form 10-K (pp. 57-118) Exhibit 99.1 to the January 16 Form 8-K (pp. 1-8)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation)	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 1-105)

Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 2) Exhibit 99.1 to the January 16 Form 8-K (p. 13)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 1) Exhibit 99.1 to the January 16 Form 8-K (pp. 11-12)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 5-105)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 91-104) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 3, 75-77) 2022 Form 10-K (pp. 125, 192-194)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 62-65) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including January 18, 2024, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5, Supplement No. 6 and Supplement No. 7. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated January 16, 2024

Prospectus Supplement No. 7 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 7 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"), Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3"), Prospectus Supplement No. 4, dated August 4, 2023 ("Supplement No. 4"), Prospectus Supplement No. 5, dated September 21, 2023 ("Supplement No. 5") and Prospectus Supplement No. 6, dated October 18, 2023. The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5 or Supplement No. 6, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5 and Supplement No. 6, relating to the information included in the Base Prospectus, since the publication of Supplement No. 6.

This Prospectus Supplement incorporates by reference:

- the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023, dated November 3, 2023 (the "2023 Third Quarter Form 10-Q"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on November 3, 2023.

A copy of the 2023 Third Quarter Form 10-Q has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

In addition:

- The following section entitled "Unaudited Interim Selected Financial Information" is hereby added to p. 46 of the Base Prospectus beneath the section entitled "Use of Proceeds":

  Unaudited Interim Selected Financial Information

  Selected historical consolidated financial information relating to The Goldman Sachs Group, Inc. which summarizes the consolidated financial position of The Goldman Sachs Group, Inc. for the 9 months ended September 30, 2023 and September 30, 2022; and selected balance sheet information as of September 30, 2023 and December 31, 2022, is set out in the following tables:

Income statement information	**For the 9 months ended 30-09-**	
	2023	**2022**
(in millions of USD)	**(unaudited)**	**(unaudited)**
Total non-interest revenues	29,924	31,168
Net revenues, including net interest income	34,936	36,772
Pre-tax earnings	8,485	11,956

Balance sheet information (in millions of USD)	As of 30-09-2023 (unaudited)	As of 31-12-2022
Total assets	1,577,153	1,411,799
Total liabilities	1,459,876	1,324,610
Total shareholders' equity	117,277	117,189

- The second paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  There has been no significant change in the financial or trading position of The Goldman Sachs Group, Inc. subsequent to September 30, 2023.

- The third paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  The Goldman Sachs Group, Inc. has not been involved in any governmental, legal or arbitration proceedings during the twelve months before the approval date of this Base Prospectus, as supplemented, which may have, or have had in the recent past, significant effects on The Goldman Sachs Group, Inc.'s financial position or profitability, except as may otherwise be indicated in (1) Part II, Item 8: Financial Statements and Supplementary Data – Note 27: Legal Proceedings on pages 210-223 of our 2022 Form 10-K, or (2) Part I, Item 1: Financial Statements — Note 27. Legal Proceedings on pages 91-104 of our 2023 Third Quarter Form 10-Q.

- The third paragraph under the heading "General Note Conditions – Interest Rates – Fixed Rate Notes" on p. 62 of the Base Prospectus is hereby delated and replaced with the following:

  If "Original Issue Discount" is specified in your final terms as being applicable, the applicable final terms will specify the "OID" (if applicable), "Accretion Rate" and the "Accretion Day Count Fraction". An original issue discount note may be a zero coupon note. The "Accreted Value" means an amount in the specified currency determined by the Calculation Agent:

  - in accordance with the following formula, if the applicable final terms specify "Basis of Compounding" to be "Annual": (1) as of any date prior to the originally scheduled stated maturity date, the *product* of (A) the original issue price of your note, *multiplied by* (B) (x) the *sum of* (i) 100% *plus* (ii) the Accretion Rate (y) *raised to the power of* the applicable Accretion Day Count Fraction (i.e. Original Issue Price x {(100% + Accretion Rate) ^ Accretion Day Count Fraction); and (2) as of any date on or after the originally scheduled stated maturity date, the amount payable at maturity (final redemption amount); and

  - in accordance with the following formula, if the applicable final terms specify "Basis of Compounding" to be "Daily": (1) as of any date prior to the originally scheduled stated maturity date, the product of (A) the original issue price of your note, *multiplied by* (B) (x) the *sum of* (i) 100% *plus* (ii) the *quotient of* (1) the Accretion Rate *divided by* (2) 360 (y) *raised to the power of* the *product of* (i) the applicable Accretion Day Count Fraction *multiplied by* (ii) 360 (i.e. Original Issue Price x {(100% + Accretion Rate / 360} ^ (Accretion Day Count Fraction x 360)); and (2) as of any date on or after the originally scheduled stated maturity date, the amount payable at maturity (final redemption amount).

- The second paragraph under the heading "General Note Conditions – Redemption and Repayment – Redemption at the Option of The Goldman Sachs Group, Inc." on pp. 99-100 of the Base Prospectus is hereby delated and replaced with the following:

Your note will be redeemable at our option, in whole or in part, on Issuer's Redemption Date(s). If we redeem your note, we will do so at the Issuer's Redemption Amount(s) specified in the applicable final terms. The Issuer's Redemption Amount(s) may be either (i) the Make Whole Redemption Amount (as defined below), (ii) the Accreted Value (as defined above under "General Note Conditions – Interest Rates – Fixed Rate Notes") as of the applicable Issuer's Redemption Date, or (iii) a percentage of the face amount of your note plus, if applicable, interest accrued but unpaid to the applicable Issuer's Redemption Date. For the avoidance of doubt, if the applicable Issuer's Redemption Date is an interest payment date, the holder will receive only the applicable Issuer's Redemption Amount on such Issuer's Redemption Date and there will be no double payment of accrued interest on the notes. If different prices are specified for different Issuer's Redemption Dates, the price we pay will be the price that applies to the Issuer's Redemption Date on which your note is redeemed in accordance with the applicable rules of Euroclear and Clearstream, Luxembourg. In the case of a partial redemption of the notes of any issuance, such partial redemption will be reflected in the records of Euroclear and Clearstream, Luxembourg as either a pool factor or a reduction in nominal amount, at their discretion in accordance with the applicable rules of Euroclear and Clearstream, Luxembourg.

- The following text is hereby added to p.103 of the Base Prospectus beneath the second bullet point under the heading "General Note Conditions – Redemption and Repayment – Non-Scheduled Early Repayment Amount":

If "**Linearly Accreted Value**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount in the specified currency equal to the Linearly Accreted Value (as defined below) as of the date of redemption or acceleration *plus*, if applicable, accrued but unpaid interest to the date of redemption or acceleration.

- The following text is hereby added to p.105 of the Base Prospectus above the defined term "UDI-Linked Accreted Value" under the heading "General Note Conditions – Redemption and Repayment – Non-Scheduled Early Repayment Amount":

"**Linearly Accreted Value**" means, for any given date, an amount in the specified currency determined by the calculation agent in accordance with the following formula:

$$\text{Prior Fixed Recovery Amount (t)} + \left(\text{Future Fixed Recovery Amount (t)} - \text{Prior Fixed Recovery Amount (t)}\right) x \frac{\text{DCF (Prior Fixed Recovery Date (t),t)}}{\text{DCF (Prior Fixed Recovery Date (t),Future Fixed Recovery Date (t))}}$$

where:

Prior Fixed Recovery Amount (t) means, in respect of calendar day (t), the amount payable in respect of the first originally scheduled Issuer's Redemption Date falling prior to such day (t) or if no such Issuer's Redemption Date exists, the original issue price.

Future Fixed Recovery Amount (t) means, in respect of calendar day (t), the amount payable in respect of the first originally scheduled Issuer's Redemption Date falling on or after such day (t) or if no such Issuer's Redemption Date exists, the amount payable at maturity (final redemption amount).

DCF (Prior Fixed Recovery Date (t),t) means, in respect of calendar day (t), the number of calendar days from (but excluding) the first originally scheduled Issuer's Redemption Date falling prior to such day (t) (or if no such Issuer's Redemption Date exists, the original issue date) to (and including) such date (t).

DCF (Prior Fixed Recovery Date (t), Future Fixed Recovery Date (t)) means, in respect of calendar day (t), the number of calendar days from (but excluding) the first originally scheduled Issuer's Redemption Date falling prior to such day (t) (or if no such Issuer's Redemption Date exists, the original issue date) to (and including) the first originally scheduled Issuer's Redemption Date falling on or after such day (t) (or if no such Issuer's Redemption Date exists, the originally scheduled stated maturity date).

- The section entitled "Original issue Discount" in the Form of Final Terms on Page S-4 of the Base Prospectus is hereby deleted and replaced with the following:

Original Issue Discount		[Not Applicable] [Applicable] [*If Not Applicable, delete the remainder of this row.*] [*If Discount Note:* **OID**: [●]%] **Accretion Rate**: [●]% per annum

- The section entitled "Non-Scheduled Early Repayment Amount" in the Form of Final Terms on Page S-12 of the Base Prospectus is hereby deleted and replaced with the following:

Non-Scheduled Early Repayment Amount	[Par Plus Accrued][Accreted Value][Linearly Accreted Value][Fair Market Value][UDI-Linked Par Plus Accrued][UDI-Linked Accreted Value] [UDI-Linked Amount] [*insert following provision where Non-Scheduled Early Repayment Amount is specified as either "UDI-Linked Par Plus Accrued", "UDI-Linked Accreted Value" or "UDI-Linked Amount" and "UDI-Linked Floor" is specified as"100% of the Face Amount"*][, subject to the UDI-Linked Floor]
[Accretion Day Count Fraction	[The Day Count Fraction will be calculated on a 30/360 basis, where the calculation period is the period starting on [(and including)][(but excluding)] the Original Issue Date and ending on [(but excluding)][(and including)] the scheduled Stated Maturity Date, relevant redemption date or date of acceleration, as applicable] [*specify*]]
[Basis of Compounding	[Annual]/[Daily]]

- The section entitled "Additional Redemption Rights at the Option of the Issuer" in the Form of Final Terms on Page S-12 of the Base Prospectus is hereby deleted and replaced with the following:

Additional Redemption Rights at the Option of the Issuer

[Not Applicable] [Applicable]
[*If Not Applicable, delete the remainder of this row.*] [

Your note will be redeemable at the Issuer's option on the Issuer's Redemption Dates specified in the table below at the corresponding Issuer's Redemption Amount:

Issuer's Redemption Date(s)	Issuer's Redemption Amount
[*insert [date]/[date range]*]	[[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Issuer's Redemption Date]/ [Make-Whole Redemption Amount]/[Accreted Value]
[*insert [date]/[date range]*] [*repeat as required*]	[[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Issuer's Redemption Date]/ [Make-Whole Redemption Amount]/[Accreted Value] [*repeat as required*]

Issuer's Redemption Notice Period: [*insert [*[●] [Business Days]]/[●] [days]] *which shall in no case be fewer than five (5) Business Days*]

[*If Make Whole Redemption Amount is not specified as the Issuer's Redemption Amount for any Issuer's Redemption Date(s), delete the remainder of this row.*]

Redemption Margin: [●]
Reference Bond: [●]

Quotation Time: [●]
Quotation Jurisdiction: [●]
Par Call Redemption Date: [Not Applicable] [*Specify*]
Make-Whole Day Count Fraction: [1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]
Make-Whole Calculation Basis: The Make-Whole Redemption Amount shall be calculated by discounting to the applicable Issuer's Redemption Date on [a/an][annual][semi-annual][quarterly][other] basis]

The 2023 Third Quarter Form 10-Q is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the 2023 Third Quarter Form 10-Q shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The 2023 Third Quarter Form 10-Q will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the 2023 Third Quarter Form 10-Q will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);
7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);
8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);
9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);
10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);
11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);
12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);
13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base

prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);
15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);
16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);
17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);
18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);
19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);
20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);
21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);
22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);
23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);
24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);
25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);
26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);
27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf); and
28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023, which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf); and
29. the Current Report on Form 8-K dated July 19, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on July 19, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf);
30. the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2023, dated August 2, 2023, which we filed with the SEC on August 3, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/second-quarter-2023-10-q.pdf);

31. the Current Report on Form 8-K dated October 17, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on October 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-10-17-23.pdf); and

32. the 2023 Third Quarter Form 10-Q (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/third-quarter-2023-10-q.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 107-172) 2022 Form 10-K (pp. 57-118)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Major Shareholders	
Beneficial owners of more than five per cent. (*Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation*)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 1-105)
Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 2)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 1)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 5-105)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 91-104) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 3, 75-77) 2022 Form 10-K (pp. 125, 192-194)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 Third Quarter Form 10-Q (pp. 62-65) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and

where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including November 8, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

The amendments to the terms and conditions of notes included on pages S-2, S-3, S-4 and S-5 of this Prospectus Supplement shall only apply to final terms the date of which falls on or after November 6, 2023.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4, Supplement No. 5 and Supplement No. 6. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated November 6, 2023

Prospectus Supplement No. 6 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 6 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"), Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3"), Prospectus Supplement No. 4, dated August 4, 2023 ("Supplement No. 4") and Prospectus Supplement No. 5, dated September 21, 2023 ("Supplement No. 5"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4 or Supplement No. 5, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4 and Supplement No. 5, relating to the information included in the Base Prospectus, since the publication of Supplement No. 5.

This Prospectus Supplement incorporates by reference:

- the Current Report on Form 8-K dated October 17, 2023 (the "October 17 Form 8-K"), including Exhibit 99.1 ("Exhibit 99.1 to the October 17 Form 8-K"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on October 17, 2023.

A copy of the October 17 Form 8-K has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

The October 17 Form 8-K is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the October 17 Form 8-K shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The October 17 Form 8-K will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the October 17 Form 8-K will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);

5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);

6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);

7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);

27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf);

28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023, which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf);

29. the Current Report on Form 8-K dated July 19, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on July 19, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf);

30. the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2023, dated August 2, 2023 (the "2023 Second Quarter Form 10-Q"), which we filed with the SEC on August 3, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/second-quarter-2023-10-q.pdf); and

31. the October 17 Form 8-K, including Exhibit 99.1 thereto (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-10-17-23.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)

Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 105-169) 2022 Form 10-K (pp. 57-118) Exhibit 99.1 to the October 17 Form 8-K (pp. 1-6)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 1-102)
Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 2) Exhibit 99.1 to the October 17 Form 8-K (p. 11)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 1) Exhibit 99.1 to the October 17 Form 8-K (pp. 9-10)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 4)

Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 5-102)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 88-101) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 3, 72-74) 2022 Form 10-K (pp. 125, 192-194)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 60-63) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including October 20, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2, Supplement No. 3, Supplement No. 4 and Supplement No. 5. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated October 18, 2023

Prospectus Supplement No. 5 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 5 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"), Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3") and Prospectus Supplement No. 4, dated August 4, 2023. The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2, Supplement No. 3 or Supplement No. 4, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2, Supplement No. 3 and Supplement No. 4, relating to the information included in the Base Prospectus, since the publication of Supplement No. 4.

The following amendments to the Base Prospectus are hereby made:

- The text under the heading "General Note Conditions – Features Common to All Notes – Business Day Conventions" on p.57 of the Base Prospectus is hereby deleted and replaced with the following:

  As specified in the applicable final terms, the following business day conventions may apply to any note with regard to any relevant date other than one that falls on the stated maturity date or earlier redemption or repayment date:

  If the "Business Day Convention" is specified in your final terms to be "Following" or "Following Adjusted" then, for any interest payment date, or any interest period start date or interest period end date specified in your final terms, if applicable, other than the stated maturity date or earlier redemption or repayment date, if such date would otherwise fall on a day that is not a business day, such date will be postponed to the next day that is a business day.

  If the "Business Day Convention" is specified in your final terms to be "Modified Following" or "Modified Following Adjusted" then, for any interest payment date, or any interest period start date or interest period end date specified in your final terms, if applicable, other than the stated maturity date or earlier redemption or repayment date, if such date would otherwise fall on a day that is not a business day, such date will be postponed to the next day that is a business day; *provided* that, if the next business day falls in the next succeeding calendar month, then such date will be advanced to the immediately preceding business day.

  If the "Business Day Convention" is specified in your final terms to be "Following Unadjusted" then, (i) for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; *provided* that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed, and (ii) for any interest period start date or interest period end date specified in your final terms, if applicable, other than the stated maturity date or earlier redemption or repayment date, if such date falls on a day that is not a business day, such date will not be postponed or advanced.

  If the "Business Day Convention" is specified in your final terms to be "Modified Following Unadjusted" then, (i) for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; *provided* that, that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed; and *provided further* that if such day would fall in the next succeeding calendar month, the date of payment with respect to such interest payment date will be advanced to the business day immediately preceding such interest payment

date, and (ii) for any interest period start date or interest period end date specified in your final terms, if applicable, other than the stated maturity date or earlier redemption or repayment date, if such date falls on a day that is not a business day, such date will not be postponed or advanced.

In all cases, (1) if the stated maturity date or any earlier redemption or repayment date with respect to a note falls on a day that is not a business day, then any payment of principal, premium, if any, and interest otherwise due on such day will be made on the next succeeding business day, and (2) if the stated maturity date or any earlier redemption or repayment date with respect to a note falls on a day that is not a business day or is postponed for any other reason as specified in your final terms, then no interest on such payment shall accrue for the period from and after the originally scheduled stated maturity date, redemption date or repayment date, as the case may be. Notwithstanding the foregoing, if your final terms specify "Final BDC Procedure" to be "Applicable", then: (i) if the "Business Day Convention" is specified to be "Modified Following Adjusted" or "Modified Following Unadjusted" and if the stated maturity date or any earlier redemption or repayment date, as postponed in accordance with the first sentence of this paragraph, would fall in the next succeeding calendar month, the date of payment with respect to such stated maturity date or earlier redemption or repayment date will be advanced to the business day immediately preceding such date and (ii) if the "Business Day Convention" is specified to be "Modified Following Adjusted" or "Following Adjusted", then interest shall accrue to the stated maturity date or any earlier redemption or repayment date, as adjusted in accordance with the first sentence of this paragraph.

- The second paragraph under the heading "General Note Conditions – Interest Rates – Fixed Rate Notes" on p. 61 of the Base Prospectus is hereby deleted and replaced with the following:

  Each fixed rate note, except any zero coupon note or discount note, will bear interest from the "Interest Commencement Date" specified in your final terms or from the most recent interest payment date to which interest on the note has been paid or made available for payment. Interest will accrue on the principal of a fixed rate note at a fixed rate per annum, or at fixed rates per annum, stated in applicable final terms as the "Interest Rate", until the principal is paid or made available for payment. Your final terms will describe the interest rates applicable to each interest period if the interest rate changes over the term of the note (as described below), and relevant interest payment dates on which interest on fixed rate notes will be payable. The "interest period" for each payment of interest due on an interest payment date or at maturity (or, where interest is not due at the end of an interest period, for purposes of determining the amount of interest that will accrue over such specified period) will include interest accrued from and including (a) the last date to which interest has been paid or made available for payment (or from the interest commencement date if none has been paid or made available for payment) or (b) the "Interest Period Start Date" specified in your final terms, if applicable (which date need not coincide with any interest payment date), to, but excluding, (x) the interest payment date, the date of maturity or the relevant early redemption date or (y) the "Interest Period End Date" specified in your final terms, if applicable (which date need not coincide with any interest payment date, date of maturity or early redemption date), in each case subject to the business day convention. We will compute interest on fixed rate notes on the basis of the day count convention specified in your final terms; see "— Day Count Conventions" above. We will pay interest on each interest payment date and at maturity as described under "— Payment Mechanics for Notes" below.

- The paragraph under the heading "General Note Conditions – Interest Rates – Floating Rate Notes – General Floating Rate Terms and Conditions – Interest Period" on p. 63 of the Base Prospectus is hereby deleted and replaced with the following:

  The interest period means the period from and including (a) an interest payment date (or the interest commencement date, in the case of the initial interest period) or (b) "the "Interest Period Start Date" specified in your final terms, if applicable (which date need not coincide with any interest payment date), to but excluding (x) the next succeeding interest payment date (or the stated maturity date (or early redemption date, if applicable), in the case of the final interest period) or (y) the "Interest Period End Date" specified in your final terms, if applicable (which date need not coincide with any interest payment date, stated maturity date or early redemption date), in each case subject to the business day convention.

- The section entitled "Interest Period" in the Form of Final Terms on Page S-12 of the Base Prospectus is hereby deleted and replaced with the following:

Interest Period	*For notes that bear interest:* [a period from and including an [originally scheduled] Interest Payment Date (or the Interest Commencement Date, in the case of the initial Interest Period) to but excluding the next succeeding [originally scheduled] Interest Payment Date (or the [originally scheduled] Stated Maturity Date [(or the [originally scheduled] Issuer's Redemption Date, in the event of a redemption at the Issuer's option)], in the case of the final Interest Period)] /

[a period from and including an Interest Period Start Date (or the Interest Commencement Date, in the case of the initial Interest Period) to but excluding the next succeeding Interest Period End Date (or the [originally scheduled] Stated Maturity Date [(or the [originally scheduled] Issuer's Redemption Date, in the event of a redemption at the Issuer's option)], in the case of the final Interest Period), as set forth in the table below.

Interest Period Start Date	Interest Period End Date
[•]	[•]

]

[*For notes that do not bear interest:* Not Applicable]

This Prospectus Supplement will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

The amendments to the terms and conditions of notes included on pages S-1, S-2 and S-3 of this Prospectus Supplement shall only apply to final terms the date of which falls on or after September 21, 2023.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2, Supplement No. 3 and Supplement No. 4. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated September 21, 2023

Prospectus Supplement No. 4 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 4 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"), Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2") and Prospectus Supplement No. 3, dated July 19, 2023 ("Supplement No. 3"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1, Supplement No. 2 or Supplement No. 3, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, Supplement No. 2 and Supplement No. 3, relating to the information included in the Base Prospectus, since the publication of Supplement No. 3.

This Prospectus Supplement incorporates by reference:

- the Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2023, dated August 2, 2023 (the "2023 Second Quarter Form 10-Q"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on August 3, 2023.

A copy of the 2023 Second Quarter Form 10-Q has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

In addition:

- The following section entitled "Unaudited Interim Selected Financial Information" is hereby added to p. 46 of the Base Prospectus beneath the section entitled "Use of Proceeds":

Unaudited Interim Selected Financial Information

Selected historical consolidated financial information relating to The Goldman Sachs Group, Inc. which summarizes the consolidated financial position of The Goldman Sachs Group, Inc. for the 6 months ended June 30, 2023 and June 30, 2022; and selected balance sheet information as of June 30, 2023 and December 31, 2022, is set out in the following tables:

Income statement information	**For the 6 months ended 30-06-**	
	2023	**2022**
(in millions of USD)	**(unaudited)**	**(unaudited)**
Total non-interest revenues	19,654	21,236
Net revenues, including net interest income	23,119	24,797
Pre-tax earnings	5,729	8,200

Balance sheet information (in millions of USD)	As of 30-06-2023 (unaudited)	As of 31-12-2022
Total assets	1,571,386	1,441,799
Total liabilities	1,454,893	1,324,610
Total shareholders' equity	116,493	117,189

- The second paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  There has been no significant change in the financial or trading position of The Goldman Sachs Group, Inc. subsequent to June 30, 2023.

- The third paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  The Goldman Sachs Group, Inc. has not been involved in any governmental, legal or arbitration proceedings during the twelve months before the approval date of this Base Prospectus, as supplemented, which may have, or have had in the recent past, significant effects on The Goldman Sachs Group, Inc.'s financial position or profitability, except as may otherwise be indicated in (1) Part II, Item 8: Financial Statements and Supplementary Data – Note 27: Legal Proceedings on pages 210-223 of our 2022 Form 10-K, or (2) Part I, Item 1: Financial Statements — Note 27. Legal Proceedings on pages 88-101 of our 2023 Second Quarter Form 10-Q.

The 2023 Second Quarter Form 10-Q is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the 2023 Second Quarter Form 10-Q shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The 2023 Second Quarter Form 10-Q will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the 2023 Second Quarter Form 10-Q will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);
7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);

27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf); and

28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023, which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf); and

29. the Current Report on Form 8-K dated July 19, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on July 19, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf); and

30. the 2023 Second Quarter Form 10-Q (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/second-quarter-2023-10-q.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 105-169) 2022 Form 10-K (pp. 57-118)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (*Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation*)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 1-102)
Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 2)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 1)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 5-102)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 88-101) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 3, 72-74) 2022 Form 10-K (pp. 125, 192-194)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 Second Quarter Form 10-Q (pp. 60-63) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including August 8, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1, Supplement No. 2 and Supplement No. 3. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated August 4, 2023

Prospectus Supplement No. 3 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 3 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1") and Prospectus Supplement No. 2, dated May 4, 2023 ("Supplement No. 2"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, Supplement No. 1 or Supplement No. 2, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1 and Supplement No. 2, relating to the information included in the Base Prospectus, since the publication of Supplement No. 2.

This Prospectus Supplement incorporates by reference:

- the Current Report on Form 8-K dated July 19, 2023 (the "July 19 Form 8-K"), including Exhibit 99.1 ("Exhibit 99.1 to the July 19 Form 8-K"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on July 19, 2023.

A copy of the July 19 Form 8-K has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

The July 19 Form 8-K is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the July 19 Form 8-K shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The July 19 Form 8-K will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the July 19 Form 8-K will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);

7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);

27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf);

28. the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023 (the "2023 First Quarter Form 10-Q"), which we filed with the SEC on May 4, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf); and

29. the July 19 Form 8-K, including Exhibit 99.1 thereto (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-07-19-23.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	

Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 101-161) 2022 Form 10-K (pp. 57-118) Exhibit 99.1 to the July 19 Form 8-K (pp. 1-6)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 1-98)
Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 2) Exhibit 99.1 to the July 19 Form 8-K (p. 11)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 1) Exhibit 99.1 to the July 19 Form 8-K (pp. 9-10)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 5-98)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 84-97) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 3, 69-71) 2022 Form 10-K (pp. 125, 192-194)

Material Contracts

Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 57-60) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including July 21, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement, Supplement No. 1 and Supplement No. 2. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated July 19, 2023

Prospectus Supplement No. 2 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 2 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith and with Prospectus Supplement No. 1, dated April 19, 2023 ("Supplement No. 1"). The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus or Supplement No. 1, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus as previously supplemented by Supplement No. 1, relating to the information included in the Base Prospectus, since the publication of Supplement No. 1.

This Prospectus Supplement incorporates by reference:

- the Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023, dated May 3, 2023 (the "2023 First Quarter Form 10-Q"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on May 4, 2023.

A copy of the 2023 First Quarter Form 10-Q has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

In addition:

- The following section entitled "Unaudited Interim Selected Financial Information" is hereby added to p. 46 of the Base Prospectus beneath the section entitled "Use of Proceeds":

  Unaudited Interim Selected Financial Information

  Selected historical consolidated financial information relating to The Goldman Sachs Group, Inc. which summarizes the consolidated financial position of The Goldman Sachs Group, Inc. for the 3 months ended March 31, 2023 and March 31, 2022; and selected balance sheet information as of March 31, 2023 and December 31, 2022, is set out in the following tables:

Income statement information	**For the 3 months ended 31-03**	
	2023	**2022**
(in millions of USD)	**(unaudited)**	**(unaudited)**
Total non-interest revenues	10,443	11,106
Net revenues, including net interest income	12,224	12,933
Pre-tax earnings	3,993	4,656

Balance sheet information (in millions of USD)	As of 31-03-2023 (unaudited)	As of 31-12-2022
Total assets	1,538,349	1,441,799
Total liabilities	1,420,840	1,324,610
Total shareholders' equity	117,509	117,189

- The second paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  There has been no significant change in the financial or trading position of The Goldman Sachs Group, Inc. subsequent to March 31, 2023.

- The third paragraph under the caption "Material Adverse or Significant Changes and Legal Proceedings" on p. 148 of the Base Prospectus is hereby deleted and replaced with the following:

  The Goldman Sachs Group, Inc. has not been involved in any governmental, legal or arbitration proceedings during the twelve months before the approval date of this Base Prospectus, as supplemented, which may have, or have had in the recent past, significant effects on The Goldman Sachs Group, Inc.'s financial position or profitability, except as may otherwise be indicated in (1) Part II, Item 8: Financial Statements and Supplementary Data – Note 27: Legal Proceedings on pages 210-223 of our 2022 Form 10-K, or (2) Part I, Item 1: Financial Statements — Note 27. Legal Proceedings on pages 84-97 of our 2023 First Quarter Form 10-Q.

The 2023 First Quarter Form 10-Q is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the 2023 First Quarter Form 10-Q shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The 2023 First Quarter Form 10-Q will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the 2023 First Quarter Form 10-Q will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);

7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840);

27. the Current Report on Form 8-K dated April 18, 2023, including Exhibit 99.1 thereto, which we filed with the SEC on April 18, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf); and

28. the 2023 First Quarter Form 10-Q (accessible on https://www.goldmansachs.com/investor-relations/financials/10q/2023/first-quarter-2023-10-q.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5, 127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 101-161) 2022 Form 10-K (pp. 57-118)

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (*Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation*)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 59-62, 127-231)
Unaudited Interim and other financial information *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 1-98)
Balance sheet *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 2)
Income statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 1)
Cash flow statement *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (p. 4)
Accounting policies and explanatory notes *(Annex 6, Section 11.2 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 5-98)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 84-97) 2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 3, 69-71) 2022 Form 10-K (pp. 125, 192-194)
Material Contracts	

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2023 First Quarter Form 10-Q (pp. 57-60) 2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including May 8, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement and Supplement No. 1. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

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Prospectus Supplement, dated May 4, 2023

Prospectus Supplement No. 1 to Base Prospectus, dated April 14, 2023
The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

This Prospectus Supplement No. 1 (the "Prospectus Supplement") to the Base Prospectus, dated April 14, 2023 and approved by the Commission de Surveillance du Secteur Financier (the "CSSF") on April 14, 2023 (the "Base Prospectus"), constitutes a supplement to the Base Prospectus for the purposes of Article 23(1) of Regulation (EU) 2017/1129 (the "Prospectus Regulation"), and should be read in conjunction therewith. The terms defined in the Base Prospectus have the same meaning when used in this Prospectus Supplement.

To the extent that there is any inconsistency between (a) any statement in this Prospectus Supplement or any statement incorporated by reference in this Prospectus Supplement and (b) any other statement in or incorporated by reference in the Base Prospectus, the statements in (a) above will prevail. Save as disclosed in this Prospectus Supplement, as at the date hereof there has been no other significant new factor, material mistake or inaccuracy which would affect the assessment of securities to be offered to the public or listed and admitted to trading on an EU regulated market pursuant to the Base Prospectus, relating to the information included in the Base Prospectus, since the publication of the Base Prospectus.

This Prospectus Supplement incorporates by reference:

- the Current Report on Form 8-K dated April 18, 2023 (the "April 18 Form 8-K"), including Exhibit 99.1 ("Exhibit 99.1 to the April 18 Form 8-K"), which we filed with the U.S. Securities and Exchange Commission (the "SEC") on April 18, 2023.

A copy of the April 18 Form 8-K has been filed with the CSSF in its capacity as competent authority under the Prospectus Regulation.

The April 18 Form 8-K is incorporated by reference into, and forms part of, this Prospectus Supplement, and the information contained in the April 18 Form 8-K shall be deemed to update any information contained in the Base Prospectus and any document incorporated by reference therein. The April 18 Form 8-K will be available as described in the section "Documents Incorporated By Reference" in the Base Prospectus. This Prospectus Supplement and the April 18 Form 8-K will be available on the website of the Luxembourg Stock Exchange at www.luxse.com.

Documents Incorporated by Reference

The following list of documents (the "Reports") supersedes the list of documents incorporated by reference on pages 41-43 of the Base Prospectus:

1. the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);
2. the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the "2023 Proxy Statement"), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);
3. the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);
4. the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);
5. the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);
6. the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);
7. the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

8. the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

9. the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

10. the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

11. the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

12. the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

13. the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

14. the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

15. the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

16. the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

17. the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

18. the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

19. the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

20. the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

21. the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

22. the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

23. the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

24. the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

25. the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c);

26. the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840); and

27. the April 18 Form 8-K, including Exhibit 99.1 thereto (accessible on https://www.goldmansachs.com/investor-relations/financials/8k/2023/8k-04-18-23.pdf).

The following table supersedes the table contained on pages 43-45 of the Base Prospectus and indicates where information required by Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation") to be disclosed in, and incorporated by reference into, this Prospectus Supplement can be found in the Reports. Unless otherwise specified, page references are to the body of each Report rather than to exhibits attached thereto.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
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History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)
Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*.....	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5,127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118) Exhibit 99.1 to the April 18 Form 8-K
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)

Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation)..	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (pp. 59-62, 127-231)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 55, 210-223)
Additional Information	
Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 125, 192-194)
Material Contracts	
Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 180-183)

In accordance with Article 23 (2) of the Prospectus Regulation, investors who had already agreed to purchase or subscribe for securities offered under the Base Prospectus before this Prospectus Supplement was published and where the securities had not yet been delivered to the investors at the time when the significant new factor, material mistake or material inaccuracy arose or was noted, have the right, exercisable within two working days after the publication of this Prospectus Supplement, up to and including April 21, 2023, to withdraw their acceptances. Investors should contact Goldman Sachs International for the exercise of the right of withdrawal.

References to the Base Prospectus in the Base Prospectus shall hereafter mean the Base Prospectus as supplemented by this Prospectus Supplement. The Goldman Sachs Group, Inc. accepts responsibility for the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement. To the best of its knowledge, the information contained in the Base Prospectus, as supplemented by this Prospectus Supplement, is in accordance with the facts and contains no omission likely to affect its import.

This Prospectus Supplement is not for use in, and may not be delivered to or inside, the United States.

Prospectus Supplement, dated April 19, 2023

The Goldman Sachs Group, Inc.
Euro Medium-Term Notes, Series F

TERMS OF SALE

Unless the context requires otherwise, references to the notes refer to Series F euro medium-term notes. The following terms may apply to the notes that The Goldman Sachs Group, Inc. may sell from time to time. The specific terms of each note will be included in the final terms relating to that note.

- stated maturity of up to 40 years from the date of issue
- fixed or floating interest rate, zero coupon and / or issued with original issue discount
- amount of interest and/or amount payable at maturity may be determined by reference to one or more underlying rates, measures or instruments
- may be subject to redemption at the option of The Goldman Sachs Group, Inc. or repayment at the option of the holder
- may not be amortized or subject to a sinking fund
- may be denominated in U.S. dollars or in other currencies, currency units or composite currencies and payable in the denominated or other currencies
- settlement in immediately available funds

The notes will not be secured by any property or assets and will not be subordinated to any of our other debt obligations.

Any of the terms described above may be varied in the applicable final terms to the extent permissible.

The Goldman Sachs Group, Inc. may offer and sell these notes to or through one or more underwriters, dealers and agents, including Goldman Sachs International, or directly to purchasers, on a continuous or delayed basis.

This base prospectus (the "Base Prospectus") has been approved by the Commission de Surveillance du Secteur Financier (the "CSSF") which is the competent authority of Luxembourg under Regulation (EU) 2017/1129 (the "Prospectus Regulation"). The CSSF only approves this Base Prospectus as meeting the standards of completeness, comprehensibility and consistency imposed by the Prospectus Regulation and the Luxembourg law dated 16 July 2019 on prospectuses for securities (the "Luxembourg Prospectus Law"). Such approval should not be considered as an endorsement of the issuer or the quality of the securities that are the subject of this Base Prospectus. In the context of such approval, the CSSF gives no undertaking as to the economic and financial soundness of the operation or the quality or solvency of the issuer in accordance with Article 6(4) of the Luxembourg Prospectus Law. Investors should make their own assessment as to the suitability of investing in the notes. Application has been made to the Luxembourg Stock Exchange for notes issued under the Series F euro medium-term notes program to be listed on the Official List and admitted to trading on the regulated market of the Luxembourg Stock Exchange. Notes issued under the Series F euro medium-term notes program may also be listed on an alternative stock exchange or may not be listed at all. The Goldman Sachs Group, Inc. is under no obligation to maintain the listing of any notes that are listed. See "Listing and General Information" below.

This Base Prospectus constitutes a base prospectus for the purposes of Article 8(1) of the Prospectus Regulation. The Base Prospectus should be read together with any supplements thereto, all documents incorporated by reference therein and the applicable final terms.

Subject to certain exceptions, the notes may not be offered, sold or delivered, directly or indirectly, in the United States of America or to U.S. persons. See "Plan of Distribution". **The notes have not been and will not be registered under the United States Securities Act of 1933, as amended, or under the securities or blue sky laws of any state. Neither the U.S. Securities and Exchange Commission nor any other regulatory body has approved or disapproved of the notes or passed upon the accuracy or inaccuracy of this Base Prospectus. This Base Prospectus is not for use in, and may not be delivered to or inside, the United States or provided to a U.S. person.**

The notes we may issue are not bank deposits and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

The Goldman Sachs Group, Inc. may use this Base Prospectus in the initial sale of any note. In addition, Goldman Sachs International or any other affiliate of The Goldman Sachs Group, Inc. may use this Base Prospectus in a market-making transaction in any note after its initial sale. ***Unless The Goldman Sachs Group, Inc. or its agent informs the purchaser otherwise in the confirmation of sale, this Base Prospectus is being used in a market-making transaction*.**

If the notes are stated in the applicable final terms to be issued under the new safekeeping structure ("NSS"), then we will deliver these notes to a common safekeeper for Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking, *société anonyme* ("Clearstream, Luxembourg"). Global notes which are not issued under NSS will be deposited with a common depositary for Euroclear and Clearstream, Luxembourg.

See "Risk Factors" beginning on p. 12 for a discussion of certain risks that should be considered in connection with an investment in certain types of notes which may be offered hereby.

Goldman Sachs International

Base Prospectus, dated April 14, 2023

Unless the context otherwise requires, references in this Base Prospectus to "The Goldman Sachs Group, Inc.", "the Issuer", "we", "our" and "us" mean only The Goldman Sachs Group, Inc. and do not include its consolidated subsidiaries. References to "Goldman Sachs", "the Group" and the "Goldman Sachs Group" refer to The Goldman Sachs Group, Inc. together with its consolidated subsidiaries. Also, when we refer to "holders" we mean those who own notes registered in their own names, on the books that we or our agents maintain for this purpose; "holders" does not refer to those who own beneficial interests in notes registered in street name or in notes issued in global — *i.e.*, book-entry — form through Euroclear SA/NV, Clearstream Banking, *société anonyme*, or another depositary. Prospective owners of beneficial interests in the notes issued in global form should read the section entitled "General Note Conditions — Form, Exchange, Registration and Transfer" below.

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this Base Prospectus. Neither this Base Prospectus nor any final terms constitutes an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction where, or to any person to whom, it is unlawful to make such offer or solicitation in that jurisdiction. Neither the delivery of this Base Prospectus, any final terms nor any sale made pursuant to those documents, shall, under any circumstances, create any implication that there has been no change in the affairs of The Goldman Sachs Group, Inc. since the date of the document or that the information contained within the documents is correct as of any time subsequent to its date.

The Luxembourg Stock Exchange's regulated market is a regulated market for the purposes of Directive 2014/65/EU (as amended, "MiFID II").

The credit ratings of The Goldman Sachs Group, Inc. referred to in the Base Prospectus have been issued by DBRS, Inc., Fitch, Inc., Moody's Investors Service and Standard & Poor's Ratings Services, each of which is established in the United States (together, the "US CRAs").

In general, European regulated investors are restricted from using a rating for regulatory purposes if such rating is not either (1) issued or validly endorsed by a credit rating agency established in the European Economic Area (an "EEA CRA") and registered with the European Securities and Markets Authority ("ESMA") under Regulation (EU) No. 1060/2009 (as amended, the "CRA Regulation") or (2) issued by a credit rating agency established outside the European Economic Area which is certified under the CRA Regulation.

In general, UK regulated investors are required to use for UK regulatory purposes ratings issued by a credit rating agency established in the UK and registered under the CRA Regulation as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (the "EUWA") (as amended, the "UK CRA Regulation") unless (1) the rating is endorsed by a UK registered credit rating agency; or (2) issued by a third country credit rating agency that is certified in accordance with the UK CRA Regulation, subject in each case, to (i) the relevant UK registration, certification or endorsement, as the case may be, not having been withdrawn or suspended, and (ii) transitional provisions that apply in certain circumstances.

The EU affiliates of DBRS, Inc., Fitch, Inc., Moody's Investors Service, Standard & Poor's Ratings Services are registered EEA CRAs on the official list, available at https://www.esma.europa.eu/supervision/credit-rating-agencies/risk. The ESMA has approved the endorsement by such EU affiliates of credit ratings issued by the corresponding US CRAs. Accordingly, credit ratings issued by the US CRAs may be used for regulatory purposes in the EU. In addition to the US CRAs mentioned, Rating and Investment Information, Inc. ("R&I") has issued a credit rating. This rating is incorporated in the Base Prospectus for information purposes only. R&I is incorporated in a third country but has not applied for the registration under the CRA Regulation.

Registration of and Consent to Use the Base Prospectus in Switzerland

This Base Prospectus may be (i) registered in Switzerland with the reviewing body (Prüfstelle) SIX Exchange Regulation AG or another reviewing body approved by the Swiss Financial Market Supervisory Authority FINMA ("FINMA") as a foreign prospectus that is also deemed to be approved in Switzerland pursuant to Article 54 paragraph 2 of the Swiss Federal Act on Financial Services ("Financial Services Act"; "FinSA") for inclusion on the list of approved prospectuses 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 this Base Prospectus and the relevant final terms by any financial intermediary specified in the relevant final terms under "Consent to Use the Base Prospectus in Switzerland" for publicly offering the notes on the basis of and in accordance with this Base Prospectus and the relevant final terms.

The notes do not constitute a participation in a Collective Investment Scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes ("CISA"). The notes are neither subject to the authorisation nor to the supervision by 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.

The CSSF has not approved any information contained in this Base Prospectus relating to public offers in Switzerland or the registration of and consent to use this Base Prospectus in Switzerland.

Responsibility Statement

The Goldman Sachs Group, Inc. accepts responsibility for the information contained in this Base Prospectus. To the best of the knowledge of The Goldman Sachs Group, Inc., the information contained in this Base Prospectus is in accordance with the facts and the Base Prospectus makes no omission likely to affect its import. Where information contained in this Base Prospectus has been sourced from a third party, such information has been accurately reproduced and so far as The Goldman Sachs Group, Inc. is aware and is able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

Other than in relation to any documents which are incorporated by reference herein, no content of any website, cited or referred to in this Base Prospectus, shall be deemed to form part of this Base Prospectus and has not been scrutinised or approved by the CSSF.

In relation to notes listed on the Official List and admitted to trading on the regulated market of the Luxembourg Stock Exchange, this Base Prospectus is valid for a period of twelve months after its date of approval and will expire on April 14, 2024. The Goldman Sachs Group, Inc. has undertaken, in connection with the listing of the notes, that if there shall occur any material adverse change in the financial condition or operations of The Goldman Sachs Group, Inc. or any modification or amendment to the terms and conditions of the notes such that this Base Prospectus would be inaccurate or misleading, The Goldman Sachs Group, Inc. will prepare and make available a supplement to this Base Prospectus or a further Base Prospectus for any subsequent issue of notes to be listed on the Official List and admitted to trading on the regulated market of the Luxembourg Stock Exchange. The obligation to supplement this Base Prospectus in the event of

any significant new factor, material mistake or material inaccuracy relating to the information included in this Base Prospectus will not apply when this Base Prospectus is no longer valid.

In this section, the expression "necessary information" means, in relation to any tranche of notes, the information necessary to enable investors in such notes to make an informed assessment of the assets and liabilities, financial position, profits and losses and prospects of The Goldman Sachs Group, Inc., of the rights attaching to such notes, and the reason for the issuance and its impact on the issuer. In relation to the different types of notes that may be issued under the program, The Goldman Sachs Group, Inc. has included in this Base Prospectus all of the necessary information except for information which is not known at the date of this Base Prospectus and which can only be determined at the time of an individual issue of a tranche of notes.

Any information relating to the notes which is not included in this Base Prospectus and which is required in order to complete the necessary information in relation to a tranche of notes will be contained either in the relevant final terms or in a further draw-down prospectus.

For a tranche of notes which is the subject of final terms, those final terms will, for the purposes of that tranche only, complete this Base Prospectus and must be read in conjunction with this Base Prospectus.

In connection with the issue of any tranche of notes, Goldman Sachs International (or persons acting on its behalf) may over-allot notes (provided that, in the case of any tranche of notes to be listed on the Official List and admitted to trading on the regulated market of the Luxembourg Stock Exchange, the aggregate principal amount of notes allotted does not exceed 105 per cent. of the aggregate principal amount of the relevant tranche) or effect transactions with a view to supporting the market price of the notes at a level higher than that which might otherwise prevail. However, there is no assurance that Goldman Sachs International (or persons acting on its behalf) will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the final terms of the offer of the relevant tranche of notes is made and, if begun, may cease at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant tranche of notes and 60 days after the date of the allotment of the relevant tranche of notes. Any stabilization action or over-allotment must be conducted by Goldman Sachs International (or persons acting on its behalf) in accordance with all applicable laws and rules.

Any insurance company or fiduciary of a pension plan or other employee benefit plan that is subject to the prohibited transactions rules of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or the Internal Revenue Code of 1986, as amended (the "Code"), including an IRA or a Keogh plan (or a governmental plan to which similar prohibitions apply), and that is considering purchasing the notes with the assets of the insurance company or the assets of the plan, should consult with its counsel regarding whether the purchase or holding of the notes could become a "prohibited transaction" under ERISA, the Code or any substantially similar prohibition in light of the representations a purchaser or holder in any of the above categories is deemed to make by purchasing and holding the notes. This is discussed in more detail under "Employee Retirement Income Security Act" below.

IMPORTANT – PROHIBITION OF SALES TO EEA RETAIL INVESTORS

If the final terms in respect of any notes includes a legend entitled "Prohibition of Sales to EEA Retail Investors", the notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European

Economic Area (the "EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the "Prospectus Regulation"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

IMPORTANT – PROHIBITION OF SALES TO UK RETAIL INVESTORS

If the final terms in respect of any notes includes a legend entitled "Prohibition of Sales to UK Retail Investors", the notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("UK"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; or (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 ("FSMA") and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or (iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA (the "UK Prospectus Regulation"). Consequently no key information document required by the PRIIPs Regulation as it forms part of domestic law by virtue of the EUWA (the "UK PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

Notwithstanding the foregoing, if the final terms in respect of the notes includes a legend entitled "Prohibition of Sales to EEA Retail Investors" or "Prohibition of Sales to UK Retail Investors" but the Issuer subsequently prepares and publishes a key information document under the PRIIPs Regulation or UK PRIIPs Regulation in respect of such notes, then the prohibition on the offering, sale or otherwise making available of the notes to retail investors as described above shall no longer apply.

Benchmark Regulation

Amounts payable under the notes may be calculated or otherwise determined by reference to the Euro Interbank Offered Rate ("EURIBOR"), the Secured Overnight Financing Rate ("SOFR"), the Sterling Over Night Index Average ("SONIA"), the Euro Short-Term Rate ("€STR), the Swiss Average Rate Overnight ("SARON"), the Tokyo Overnight Average Rate ("TONA"), the MXN TIIE Banxico (as described in "Features Common to All Notes—Interest Rates—Floating Rate Notes—Base Rates—MXN TIIE Banxico"), any CMS Reference Rate (as defined in the section entitled "Features Common to All Notes—Interest Rates—Floating Rate Notes—Overnight Rate Notes—CMS Rate Notes"), SOFR index, SONIA compounded index, compounded €STR index, SARON index and TONA index (each as described in the section entitled "Features Common to All Notes—Interest Rates—Floating Rate Notes—Overnight Rate Notes— Calculation Method: Compounded Daily (Index Determination)").

EURIBOR is provided by the European Money Markets Institute ("EMMI"). As of the date of this Base Prospectus, EMMI appears on the register of administrators and benchmarks established

and maintained by ESMA (the "ESMA Benchmarks Register") pursuant to Article 36 of Regulation (EU) 2016/1011 (the "Benchmark Regulation").

SOFR and SOFR index are provided by the Federal Reserve Bank of New York. As of the date of this Base Prospectus, the Federal Reserve Bank of New York does not appear on the ESMA Benchmarks Register.

SONIA and SONIA compounded index are provided by the Bank of England. As of the date of this Base Prospectus, the Bank of England does not appear on the ESMA Benchmarks Register.

€STR and compounded €STR index are provided by the European Central Bank. As of the date of this Base Prospectus, the European Central Bank does not appear on the ESMA Benchmarks Register.

TONA is provided by the Bank of Japan. As of the date of this Base Prospectus, the Bank of Japan does not appear on the ESMA Benchmarks Register.

MXN TIIE Banxico is provided by the Banco de Mexico. As of the date of this Base Prospectus, the Banco de Mexico does not appear on the ESMA Benchmarks Register.

As far as the Issuer is aware, the Federal Reserve Bank of New York, as administrator of SOFR and SOFR index, the Bank of England, as administrator of SONIA and SONIA index, the European Central Bank, as administrator of €STR and €STR index, the Bank of Japan, as the administrator of TONA and the Banco de Mexico, as the administrator of MXN TIIE Banxico, are not required to be registered by virtue of Article 2 of the Benchmark Regulation.

SARON and SARON index are provided by SIX Index AG and are endorsed for use in the European Union by SIX Financial Information Nordic AB. As at the date of this Base Prospectus, SIX Financial Information Nordic AB appears on the ESMA Benchmarks Register.

TONA index is provided by QUICK Corp. As of the date of this Base Prospectus, QUICK Corp., as the administrator of TONA index, does not appear on the ESMA Benchmarks Register. As far as the Issuer is aware, the transitional provisions in Article 51 of the Benchmark Regulation apply, such that QUICK Corp. is not currently required to obtain authorization or registration (or, if located outside the European Union, recognition, endorsement or equivalence).

A CMS Reference Rate is a constant maturity swap rate, calculated on a fixed-to-floating basis by reference to an underlying floating rate that can in itself constitute a "benchmark" for the purposes of the Benchmark Regulation.

In addition, amounts payable under the notes may be calculated or otherwise determined by reference to other base rates or indices or combinations of indices as indicated in the applicable final terms. Any such base rate or index may constitute a benchmark for the purposes of the Benchmark Regulation. If any such base rate or index does constitute such a benchmark the applicable final terms will indicate whether or not the benchmark is provided by an administrator included in the ESMA Benchmarks Register.

Not every base rate or 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, we do not intend to update this Base Prospectus or the applicable final terms to reflect any change in the registration status of the administrator.

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OVERVIEW OF THE PROGRAM

The following is an overview of the Series F euro medium-term notes program of The Goldman Sachs Group, Inc. and should be read as an introduction to, and in conjunction with, the remainder of this Base Prospectus, including any documents incorporated by reference therein, and the applicable final terms, and you should base your investment decision on a consideration of this Base Prospectus, including any documents incorporated by reference therein, and the applicable final terms as a whole. This overview constitutes a general description of the Series F euro medium-term notes program for the purposes of Article 25(1) of Commission Delegated Regulation (EU) 2019/980 (the "Prospectus Regulation Implementing Regulation").

Issuer	The Goldman Sachs Group, Inc.
LEI	784F5XWPLTWKTBV3E584
Website of the Issuer	Our internet address is www.goldmansachs.com. Information on our website does not form part of this Base Prospectus unless incorporated by reference into this Base Prospectus.
Dealers	We may offer and sell the notes to or through one or more dealers or directly to purchasers on a continuous or delayed basis. Dealers include Goldman Sachs International and any other dealers we may, from time to time, appoint.
Fiscal agent and registrar	The Bank of New York Mellon.
Listing agent, paying agent and transfer agent	We have initially appointed Banque Internationale à Luxembourg as listing agent, paying agent and transfer agent for all notes listed on the Official List of the Luxembourg Stock Exchange. We may at any time terminate the appointment of any listing agent, paying agent or transfer agent and appoint additional such agents. However, we will maintain a paying agent in a European city until all outstanding notes have been delivered to the fiscal agent for cancellation, or monies sufficient to pay all amounts due on such notes have been made available for payment.
Calculation agent	We have initially appointed Goldman Sachs International as calculation agent. We may at any time, without your consent and without notifying you, terminate the appointment of any calculation agent and appoint additional calculation agents.
Use of proceeds	We intend to use the net proceeds from the sale of the notes to provide additional funds for our operations and for other general corporate purposes, unless otherwise specified in the applicable final terms. In particular, if so specified in the applicable final terms, we may intend to allocate an amount equal to the net proceeds from the notes to finance or refinance projects and assets made or held by any Group member that respond to critical environmental, social and/or sustainability issues, as further specified in the applicable final terms.
Issuance in series	Each of the Series F euro medium-term notes constitute a single, distinct series of notes. We may from time to time issue additional series, which may have different terms.
Currencies	Notes will be denominated in U.S. dollars or other currencies, as specified in the applicable final terms.

Form of notes	We will issue each note in registered form. If the applicable final terms state that the notes are to be issued under NSS and that they are intended to be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations, then the notes will be registered in the name of a nominee for a common safekeeper for Euroclear and Clearstream, Luxembourg and we will deliver these notes to a common safekeeper for Euroclear and Clearstream, Luxembourg. Delivering the notes to a common safekeeper does not necessarily mean that the notes will be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations by the Eurosystem either upon issue or at any time or all times during their life. Global notes in registered form which are not issued under NSS will be deposited with, and registered in the name of a nominee of, a common depositary for Euroclear and Clearstream, Luxembourg or other clearing system as specified in the applicable final terms
Types of notes	We may issue fixed rate notes (including zero coupon notes), floating rate notes, and indexed notes.
Stated Maturity	In general, notes will have a stated maturity of up to 40 years from the date of issue.
Interest-bearing notes	Notes may bear interest at a fixed or floating rate. Fixed rate notes include zero coupon notes, and other discount securities, which are issued at a price lower than the face amount. Floating rate notes bear interest at rates based on one or more of the base rates specified in the Base Prospectus or the applicable final terms. A base rate may be adjusted by adding or subtracting a specified number of basis points or multiplying it by a specified percentage and may be subject to a minimum rate or a maximum rate, as specified in the applicable final terms. Indexed notes bear interest at rates determined at least in part by reference to, directly or indirectly, one or more underlyers. Indexed notes are further categorized as having one or more of the following features: “range accrual”, “steepener/flattener”, “Asian absolute performance”, “digital”, “outperformance” and “participation”.
Sinking fund	Unless otherwise indicated in the applicable final terms, the notes will not be entitled to the benefit of a sinking fund.
Redemption at our option	Unless otherwise specified in the applicable final terms, we will not be entitled to redeem the notes before maturity, provided that, if the applicable final terms specify “Additional Redemption Rights at the Option of the Issuer” to be applicable, we may redeem the notes in the event of certain developments involving an original primary rate event, a change in law (including a change in tax law) or in connection with the imposition of United States withholding taxes for which we have agreed to pay additional amounts.

Payment of additional amounts	Unless otherwise specified in the applicable final terms, we will make all payments on the notes without deducting U.S. withholding taxes, unless we are required by law to do so and, if we are required by law to deduct U.S. withholding taxes, we will not pay additional amounts on those payments unless the applicable final terms provide for the gross-up of any payments due on the notes and only under certain circumstances as described below under "Description of the Program — Payment of Additional Amounts."
Mergers and similar transactions	We will not merge or consolidate with another corporation or corporate entity, unless certain conditions are met.
Events of default and remedies	If an event of default occurs and is continuing (the default not having been cured or waived as provided under "— Meetings, Modification and Waiver of Covenants" below), the holder of an affected note may, at its option, by written notice to us and the fiscal agent, declare the principal amount of its note to be immediately due and payable. If the event of default occurs because of events in bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc., the principal amount of the notes will be automatically accelerated, without any action by the fiscal agent or any holder.
Meetings, modification and waiver of covenants	The fiscal agency agreement contains provisions for convening meetings of holders to consider matters affecting their interests. Certain changes require each affected holder's approval, others require no approval by holders and still others require the approval of two-thirds of the holders.
Payment mechanics for notes	Unless otherwise specified in the applicable final terms, all payments on notes will be made in the applicable specified currency, subject to certain exceptions. We will make payments on a global note in accordance with the applicable policies of the relevant clearing systems which, unless specified in the applicable final terms will be Euroclear and Clearstream, Luxembourg. We will make payments on a note in registered non-global form by paying interest due on an interest payment date to the holder at the address shown on the register for such notes as of the close of business on the regular record date and all other payments by check or via wire transfer at the corporate trust office of the fiscal agent and the office of the paying agent, against surrender of the note.
Governing law	New York
Listing and admission to trading	Application has been made to admit the notes to trading on the regulated market of the Luxembourg Stock Exchange and listing on the Official List of the Luxembourg Stock Exchange unless otherwise specified in the applicable final terms. However, we are under no obligation to maintain the listing of any notes that are listed.

Clearing systems	Unless otherwise specified in the applicable final terms, Euroclear and Clearstream, Luxembourg.
Market-making	This Base Prospectus may be used by Goldman Sachs International in connection with offers and sales of the notes in market-making transactions.
Status of notes under the U.S. securities laws	The notes are not, and will not be, registered under the U.S. Securities Act of 1933 and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in transactions exempt from the registration requirements.
Selling restrictions	For a description of certain restrictions on offers, sales and deliveries of the notes and the distribution of offering material in certain jurisdictions, see "Plan of Distribution" and the applicable final terms.
Risk factors	We face a variety of risks, including market, liquidity, credit, operational, legal, regulatory, competition, market development and general business environment related risks. In addition, the notes are subject to a number of risks, including those related to credit market conditions, interest rate levels, our credit rating, global market conditions, certain tax-related risks as well as the risk that the notes may not have an active trading market. Notes denominated or payable in or linked to foreign currencies, or linked to an underlying asset or underlyer, are subject to additional risks, including that you may lose all or a portion of the principal invested and may receive no interest, and the volatility of the currencies or underlyers (including the underlyer components). Notes linked to benchmark underlyers also face additional risk, including consequences that may have a material adverse effect on the return on, value of, and market for any such notes. We may also engage in business activities that are adverse to your interests. For more information see "Risk Factors" on page 12. You should understand these risks before making any investment decision

RISK FACTORS

Risk Factors in Relation to the Issuer

Market Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our businesses have been and may in the future be adversely affected by conditions in the global financial markets and broader economic conditions. (pages 29-30 of the 2022 Form 10-K);

(b) Our businesses have been and may in the future be adversely affected by declining asset values, particularly where we have net "long" positions, receive fees based on the value of assets managed, or receive or post collateral. (pages 30-31 of the 2022 Form 10-K);

(c) Our market-making activities have been and may in the future be affected by changes in the levels of market volatility. (page 31 of the 2022 Form 10-K);

(d) Our investment banking, client intermediation, asset management and wealth management businesses have been adversely affected and may in the future be adversely affected by market uncertainty or lack of confidence among investors and CEOs due to declines in economic activity and other unfavorable economic, geopolitical or market conditions. (page 31 of the 2022 Form 10-K); and

(e) Our asset management and wealth management businesses have been and may in the future be adversely affected by the poor investment performance of our investment products or a client preference for products other than those which we offer or for products that generate lower fees. (page 32 of the 2022 Form 10-K).

Liquidity Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our liquidity, profitability and businesses may be adversely affected by an inability to access the debt capital markets or to sell assets. (page 32 of the 2022 Form 10-K);

(b) Our businesses have been and may in the future be adversely affected by disruptions or lack of liquidity in the credit markets, including reduced access to credit and higher costs of obtaining credit. (page 33 of the 2022 Form 10-K);

(c) Reductions in our credit ratings or an increase in our credit spreads may adversely affect our liquidity and cost of funding. (page 33 of the 2022 Form 10-K); and

(d) Group Inc. is a holding company and its liquidity depends on payments and loans from its subsidiaries, many of which are subject to legal, regulatory and other restrictions on providing funds or assets to Group Inc. (page 34 of the 2022 Form 10-K).

Credit Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our businesses, profitability and liquidity may be adversely affected by deterioration in the credit quality of or defaults by third parties. (page 35 of the 2022 Form 10-K);

(b) Concentration of risk increases the potential for significant losses in our market-making, underwriting, investing and financing activities. (page 35 of the 2022 Form 10-K); and

(c) Derivative transactions and delayed documentation or settlements may expose us to credit risk, unexpected risks and potential losses. (page 36 of the 2022 Form 10-K).

Operational Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) A failure in our operational systems or human error, malfeasance or other misconduct, could impair our liquidity, disrupt our businesses, result in the disclosure of confidential information, damage our reputation and cause losses. (pages 36-37 of the 2022 Form 10-K);

(b) A failure or disruption in our infrastructure, or in the operational systems or infrastructure of third parties, could impair our liquidity, disrupt our businesses, damage our reputation and cause losses. (page 38 of the 2022 Form 10-K);

(c) A failure to protect our computer systems, networks and information, and our clients' information, against cyber attacks and similar threats could impair our ability to conduct our businesses, result in the disclosure, theft or destruction of confidential information, damage our reputation and cause losses. (pages 38-40 of the 2022 Form 10-K); and

(d) We may incur losses as a result of ineffective risk management processes and strategies. (page 40 of the 2022 Form 10-K).

Legal and Regulatory Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our businesses and those of our clients are subject to extensive and pervasive regulation around the world. (pages 41-43 of the 2022 Form 10-K);

(b) A failure to appropriately identify and address potential conflicts of interest could adversely affect our businesses. (page 43 of the 2022 Form 10-K);

(c) We may be adversely affected by increased governmental and regulatory scrutiny or negative publicity. (page 44 of the 2022 Form 10-K);

(d) Substantial civil or criminal liability or significant regulatory action against us could have material adverse financial effects or cause us significant reputational harm, which in turn could seriously harm our business prospects. (pages 44-45 of the 2022 Form 10-K);

(e) In conducting our businesses around the world, we are subject to political, legal, regulatory and other risks that are inherent in operating in many countries. (page 45 of the 2022 Form 10-K);

(f) The application of regulatory strategies and requirements in the U.S. and non-U.S. jurisdictions to facilitate the orderly resolution of large financial institutions could create greater risk of loss for Group Inc.'s security holders. (page 46 of the 2022 Form 10-K);

(g) The application of Group Inc.'s proposed resolution strategy could result in greater losses for Group Inc.'s security holders. (page 47 of the 2022 Form 10-K); and

(h) Our commodities activities, particularly our physical commodities activities, subject us to extensive regulation and involve certain potential risks, including environmental, reputational and other risks that may expose us to significant liabilities and costs. (pages 47-48 of the 2022 Form 10-K).

Competition Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our results have been and may in the future be adversely affected by the composition of our client base. (page 48 of the 2022 Form 10-K);

(b) The financial services industry is highly competitive. (pages 48-49 of the 2022 Form 10-K);

(c) The growth of electronic trading and the introduction of new products and technologies, including trading and distributed ledger technologies, including cryptocurrencies, has increased competition. (page 49 of the 2022 Form 10-K); and

(d) Our businesses would be adversely affected if we are unable to hire and retain qualified employees. (pages 49-50 of the 2022 Form 10-K).

Market Developments and General Business Environment Risks

See the following risk factors as incorporated by reference from the 2022 Form 10-K (as defined below in "Documents Incorporated by Reference") in the following order:

(a) Our businesses, financial condition, liquidity and results of operations have been and may in the future be adversely affected by unforeseen or catastrophic events, including pandemics, terrorist attacks, extreme weather events or other natural disasters. (page 50 of the 2022 Form 10- K);

(b) Climate change could disrupt our businesses and adversely affect client activity levels and the creditworthiness of our clients and counterparties, and our efforts to address concerns relating to climate change could result in damage to our reputation. (pages 50-51 of the 2022 Form 10-K);

(c) Our business, financial condition, liquidity and results of operations may be adversely affected by disruptions in the global economy caused by Russia's invasion of Ukraine and related sanctions and other developments. (page 51 of the 2022 Form 10-K);

(d) Certain of our businesses, our funding instruments and financial products may be adversely affected by changes in or the discontinuance of Interbank Offered Rates (IBORs), in particular USD LIBOR. (page 52 of the 2022 Form 10-K);

(e) Certain of our businesses and our funding instruments may be adversely affected by changes in other reference rates, currencies, indexes, baskets or ETFs to which products we offer or funding that we raise are linked. (page 52 of the 2022 Form 10-K);

(f) Our business, financial condition, liquidity and results of operations may be adversely affected by disruptions in the global economy caused by escalating tensions between the U.S. and China. (page 53 of the 2022 Form 10-K);

(g) We face enhanced risks as new business initiatives and acquisitions lead us to engage in new activities, operate in new locations, transact with a broader array of clients and counterparties and expose us to new asset classes and new markets. (pages 53-54 of the 2022 Form 10-K); and

(h) We may not be able to fully realize the expected benefits or synergies from acquisitions or other business initiatives in the time frames we expect, or at all. (page 54 of the 2022 Form 10-K).

Risk Factors in Relation to the Notes

Risk Factors Related to the Value and Liquidity of the Notes

The Market Price of Any Notes We May Issue May Be Influenced by Many Unpredictable Factors and If You Buy a Note and Sell It Prior to the Stated Maturity Date, You May Receive Less Than the Face Amount of Your Note

The following factors, most of which are beyond our control, will influence the market price of any notes we may issue:

- economic, military, financial, regulatory, political, terrorist and other events that affect securities generally;
- interest and yield rates in the market;
- the time remaining until a note matures;
- our creditworthiness, whether actual or perceived, and including actual or anticipated upgrades or downgrades in our credit ratings or changes in other credit measures; and
- in the case of an indexed note, the market price of the relevant underlyer or underlyers or, if applicable, the underlyer components, and the volatility — i.e., the frequency and magnitude of changes in the market price of the relevant underlyer or, if applicable, the underlyer components.

As a result of these and other factors, if you buy a note and sell it prior to maturity, you may receive less than the outstanding face amount of your note. Moreover, these factors interrelate in complex ways, and the effect of one factor may offset or enhance the effect of another factor.

The issue price and/or offer price of the notes may include subscription fees, placement fees, direction fees, structuring fees and/or other additional costs. Any such fees and costs may not be taken into account for the purposes of determining the price of such notes on the secondary market and could result in a difference between the original issue price and/or offer price, the theoretical value of the notes, and/or the actual bid/offer price quoted by any intermediary in the secondary market. Any such difference may have an adverse effect on the value of the notes, particularly immediately following the offer and the issue date relating to such notes, where any such fees and/or costs may be deducted from the price at which such notes can be sold by the initial investor in the secondary market.

Changes in Interest Rates Are Likely to Affect the Market Price of Any Notes We May Issue

We expect that the market price of any notes we may issue will be affected by changes in interest rates, although these changes may affect such notes and a traditional debt security to different degrees. In general, if interest rates increase, we expect that the market value of a fixed income instrument which paid interest payments and an amount equal to the outstanding face amount of a note you may purchase on the same schedule as that note would decrease, whereas if interest rates decrease, we expect that the market value of such a fixed income instrument would increase.

Any Notes We May Issue May Not Have an Active Trading Market; The Aggregate Nominal Amount Outstanding at Any Given Time May Be Significantly Less Than That Outstanding on the Issue Date, and This Could Have a Negative Impact on Your Ability to Sell the Notes in the Secondary Market

Even if your notes are listed on a stock exchange, a secondary market for any notes we may issue is unlikely to develop. Even if a secondary market for a note develops, it may not provide significant liquidity and we and/or our affiliates have no obligation to make a market with respect to the note and make no commitment to make a market in or repurchase the note. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for the note in any secondary

market could be substantial. There may be less liquidity in the secondary market for the notes if they are exclusively offered to retail investors without any offer to institutional investors.

If so indicated in the relevant final terms, on the issue date a specified amount of notes will be issued by The Goldman Sachs Group, Inc. to and made available for sale by Goldman Sachs International or another entity (in its capacity as dealer), and as soon as practicable thereafter, listed and admitted to trading on one or more regulated markets of any European Economic Area Member State ("EEA Member State") for purchase by investors. However, Goldman Sachs International (in its capacity as dealer of the notes issued by The Goldman Sachs Group, Inc.) will reserve its right to have some or all of the notes that it holds cancelled at any time prior to the final maturity of the notes, such right to be exercised in accordance with applicable laws, the terms and conditions of the relevant notes and the applicable rules of the relevant regulated markets including as to notification. In particular, at any time following listing and admission to trading on one or more regulated markets of any EEA Member State, Goldman Sachs International (in its capacity as dealer of the notes issued by The Goldman Sachs Group, Inc.) may cancel some or all of any Notes which have not been purchased by investors at such time. Accordingly, the total amount of notes outstanding at any time may be significantly less than the amount issued on the relevant issue date and this could have a negative impact on an investor's ability to sell the notes in the secondary market. Notification of any such cancellation of notes will be made according to the rules of the relevant regulated markets.

Changes in Our Credit Ratings May Affect the Market Price of a Note

Our credit ratings are an assessment of our ability to pay our obligations, including those on any notes we may issue. Consequently, actual or anticipated changes in our credit ratings may affect the market price of a note. However, because the return on a note is typically dependent upon certain factors in addition to our ability to pay our obligations on the note, an improvement in our credit ratings will not reduce the other investment risks related to any such notes. See "Credit Ratings" for more information.

Risk Factors Related to Certain Product Terms or Features

If Your Final Terms Specify That We Have the Right to Redeem Your Note at Our Option, the Value of Your Notes May Be Adversely Affected.

Your final terms may specify that we have the right to redeem your note at our option. Even if we do not exercise this option, our ability to do so may adversely affect the value of your notes.

Public Offers of the Notes May Be Subject to Extension, Postponement, Revocation and/or Termination

If the notes are distributed by means of a public offer, under certain circumstances indicated in the applicable final terms, the Issuer and/or the other entities indicated in the applicable final terms will have the right to withdraw or revoke the offer, and the offer will be deemed to be null and void according to the terms indicated in the applicable final terms.

The Issuer and/or the other relevant entities specified in the applicable final terms may also terminate the offer early by immediate suspension of the acceptance of further subscription requests and by giving notice to the public in accordance with the applicable final terms. Any such termination may occur even where the maximum amount for subscription in relation to that offer (as specified in the applicable final terms) has not been reached. In such circumstances, the early closing of the offer may have an impact on the aggregate number of notes issued and, therefore, may have an adverse effect on the liquidity of the notes.

Furthermore, under certain circumstances indicated in the applicable final terms, the Issuer and/or the other entities indicated in the applicable final terms will have the right to extend the offer period and/or to postpone the originally designated issue date, and related interest payment dates and the maturity date.

Sales and Issuances of Notes in Italy Through the MOT May be on Terms and Subject to Conditions That Differ From Typical Offers of Debt Securities in Italy, Including in Certain Cases the Condition

That the Notes Be Approved for Admission to Trading on the MOT by Borsa Italiana and the Right of The Goldman Sachs Group, Inc. to Terminate the Offer Prior to Issuance

The applicable final terms for an offering may indicate that notes are to be sold in Italy by means of a public offering through the MOT, the electronic bond market operated by Borsa Italiana, S.p.A. ("Borsa Italiana") on terms and subject to conditions described in the applicable final terms (an "MOT OPV Offer"). The terms and conditions of such MOT OPV Offer may differ from the typical terms and conditions of primary and secondary sales of debt securities in Italy. To the extent specified in the applicable final terms, investors may purchase notes offered in an MOT OPV Offer during the offer period by submitting irrevocable purchase offers through dealers/intermediaries appointed by The Goldman Sachs Group, Inc. and/or through certain other intermediaries authorized by or operating through entities authorized by Borsa Italiana to execute transactions on the MOT. The acceptance of a purchase offer by an investor does not alone constitute the completion of a contract with respect to the notes. The effectiveness of a contract is subject not only to correct execution of the purchase offer but also to the issuance of the notes, and may be subject to (i) the right of The Goldman Sachs Group, Inc., and any dealers or intermediaries with termination rights as indicated in the applicable final terms, to terminate the MOT OPV Offer prior to issuance and (ii) Borsa Italiana's approval of the notes for admission to trading on the MOT at the end of the offer period. In addition, if indicated in the applicable final terms, issuance of notes offered through an MOT OPV Offer may be subject to the condition that there be a minimum amount of the notes accepted for sale. If for any reason The Goldman Sachs Group, Inc. or any dealer or intermediary with termination rights elects to terminate the offer, or Borsa Italiana has not approved the admission of the notes to trading on the MOT (and such approval is a condition to the offer) or any other condition of the offer is not met, no notes will be issued and the acceptance of the investor's purchase offer will not constitute the completion of a contract.

Holders of Our Notes Could be at Greater Risk for Being Structurally Subordinated If The Goldman Sachs Group, Inc. Sells or Transfers Its Assets Substantially as an Entirety to One or More of Its Subsidiaries.

With respect to the notes, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that the assets of The Goldman Sachs Group, Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries. If we sell or transfer our assets substantially as an entirety to our subsidiaries, third-party creditors of our subsidiaries would have additional assets from which to recover on their claims while holders of the notes, in addition to being contractually subordinate and junior in right of payment to senior creditors, would be structurally subordinated to creditors of our subsidiaries with respect to such assets.

The Notes We May Issue Are Not Insured by the Federal Deposit Insurance Corporation

None of the notes offered hereby will be a deposit insured or guaranteed by the Federal Deposit Insurance Corporation ("FDIC") or any other government authority, and do not benefit from the protections offered by any government or governmental or private agency or deposit protection scheme in any jurisdiction. The Series F euro medium-term notes will rank pari passu with all other unsecured and unsubordinated indebtedness of The Goldman Sachs Group, Inc.

Considerations Relating to Notes Whose Final Terms Indicate an Amount Equal to the Net Proceeds Will be Allocated to Respond to Environmental, Social and/or Sustainability Issues

The Use of Proceeds of the Notes May Not be Suitable for All Investors and May Not Meet Investor Expectations.

If so indicated in the applicable final terms of an offering of notes, we intend to apply an amount equal to the net proceeds from such offering towards financing or refinancing investments made or held by any Group member that respond to critical environmental, social and/or sustainability issues, as further specified in such final terms. The cash proceeds from any such offering will not be segregated from our other funds, and we are under no obligation to use the specific cash proceeds from any such offering to finance or refinance such investments as described in the applicable final terms. Furthermore, we will have

significant flexibility in allocating the net proceeds from such notes, including determining in our discretion what constitutes an eligible investment as defined in the applicable final terms for such notes, whether to apply proceeds against new such eligible investments or those already made by us before the issue date, and whether to re-allocate net proceeds away from eligible investments when such investments mature or are divested.

No assurances can be provided by us or any underwriter, dealer or agent that the use of proceeds from any such notes, nor the expected or actual sustainable impact of such investments, will satisfy any present or future investor expectations or requirements regarding sustainability performance. Furthermore, no assurance is given that any such notes will satisfy, in whole or in part, any present or future taxonomies, standards and/or other regulatory or index inclusion criteria or voluntary guidelines with which such investor or its investments may be expected to comply. In particular, the notes are not expected to satisfy any European Union criteria or taxonomies for environmentally sustainable financial products, investments or activities, including as set out under the Regulation of the European Parliament and of the Council on the Establishment of a Framework to Facilitate Sustainable Investment (Regulation (EU) 2020/852).

No assurance or representation is given as to the suitability or reliability for any purpose whatsoever of any opinion or certification (whether or not solicited by us) made available in connection with any such notes. No such opinion or certification is, nor should it be deemed to be, a recommendation by us, any underwriter, dealer or agent or any other person to buy, sell or hold the notes. No such opinion or certification is, nor shall it be deemed to be, incorporated into this Base Prospectus.

Any failure in applying an amount equal to the net proceeds from any notes to eligible investments as defined in the applicable final terms of such notes, failure of those investments to achieve the expected outcomes, and/or change or withdrawal of any third party certification or opinion may have a material adverse effect on the value of such notes and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities identified as sustainable. In addition, other investments we make or other aspects of our business may be criticized by activist groups or other stakeholders focused on sustainability issues, which could have a negative effect on the value of such notes.

Delay or failure to allocate or manage the proceeds from any such notes or to meet any reporting schedule as described in such notes' applicable final terms shall not constitute an event of default under such notes.

Considerations Relating to Floating Rate Notes

A Negative Floating Base Rate May Reduce Any Positive Spread Payable on Your Notes

If your note is a floating rate note, it may bear interest at a rate equal to a specified base rate plus a percentage or a specified number of basis points (called the spread). If your final terms indicate "Base Rate 0% Floor" as "Not Applicable", then the specified base rate may be negative for some or all interest periods. For any interest period, if the specified base is negative, then it will reduce the interest rate payable for such interest period below the specified spread, potentially to zero. Accordingly, you may receive an interest rate on your notes that is lower than the specified spread, and this would adversely affect the value of and return on your notes.

Considerations Relating to Indexed Notes

We use the term "indexed notes" to mean any notes whose value is linked to any underlying asset or underlyer. Indexed notes may present a high level of risk, and investors in certain indexed notes may lose the value of their entire investment or part of it, as the case may be, depending on the structure as indicated in the final terms. In addition, the treatment of indexed notes for U.S. federal income tax purposes is often unclear due to the absence of any authority specifically addressing the issues presented by any particular indexed note. Thus, if you propose to invest in indexed notes, you should independently evaluate the federal income tax consequences of purchasing an indexed note that apply in your particular circumstances. You should also read "United States Taxation" below for a discussion of U.S. tax matters.

Considerations Relating to Indexed Notes Generally

The Return on Indexed Notes May Be Below the Return on Similar Securities

Depending on the terms of an indexed note, as specified in the applicable final terms, you may not receive any periodic interest payments or receive only very low payments on the note. As a result, the overall return on a note may be less than the amount you would have earned by investing the face amount of a note in a non-indexed debt security that bears interest at a prevailing market fixed or floating rate.

Payments on Indexed Notes May Be Linked to the Average Performance of the Underlyers and Not the Overall Change in the Underlyer Performance

The formula used to determine the amounts payable on an indexed note may be calculated by reference to the average performance of the underlyer or underlyers over a number of observation dates and not by reference to the overall change in the underlyer or underlyers over the life of your note. In this case, relevant underlyer levels on one or more of these dates may be sufficiently low or high to offset any overall gain or decline in the underlyer, in which case you might receive no payment amount on the note or a payment amount that is less than the amount that would have been paid had the payment amount been linked to the change in the underlyer from the issue date (or other date, as specified in the applicable final terms) to the final observation date or the stated maturity date, as the case may be.

Use of Participation Factors Over 100 Percent May Result in Disproportionate Exposure to the Negative Performance of the Underlyer

Where the applicable final terms of the notes provide that the redemption amount of such note is based upon the performance of the underlyer multiplied by a participation factor which is over 100 percent, a purchaser may participate disproportionately in any positive performance and/or may have a disproportionate exposure to any negative performance of the underlyer. Due to this leverage effect, the notes represent a very speculative and risky form of investment since any loss in the value of the underlyer carries the risk of a correspondingly higher loss.

The Issuer of a Security or Currency That Serves as Part of an Underlyer Could Take Actions That May Adversely Affect an Indexed Note

The issuer of a security that serves as an underlyer or part of an underlyer for an indexed note will have no involvement in the offer and sale of the note and no obligations to the holder of the note. The issuer of such security may take actions, such as a merger or sale of assets, without regard to the interests of the holder. Any of these actions could adversely affect the value of a note based on an underlyer linked to such security.

If the underlyer for an indexed note includes a non-U.S. dollar currency or other asset denominated in a non-U.S. dollar currency, the government that issues that currency will also have no involvement in the offer and sale of the indexed note and no obligations to the holder of that note. That government may take actions that could adversely affect the value of such note. See "— Risk Factors Associated with Foreign Exchange Rates — Government Policy Can Adversely Affect Foreign Currency Exchange Rates and an Investment in a Foreign Currency Note" below for more information about these kinds of notes.

An Indexed Note May Be Linked to a Volatile Underlyer, Which May Adversely Affect an Investment

Some underlyers are highly volatile, which means that their value may change significantly, up or down, over a short period of time. It is impossible to predict the future performance of an underlyer based on its historical performance. The amount of principal or interest that can be expected to become payable on an indexed note may vary substantially from time to time. Because the amount of principal or interest payable on an indexed note is generally calculated based on the value of the relevant underlyer on a specified date or over a limited period of time, volatility in the underlyer increases the risk that the return on an indexed note may be adversely affected by a fluctuation in the level of the relevant underlyer.

The volatility of an underlyer may be affected by 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 an indexed note.

Underlyers May Move in Opposite Directions, Which May Affect the Amount You Receive on an Indexed Note Linked to a Basket of Underlyers

If you purchase an indexed note, the amount of interest you may receive on the note, if any, may be based on the performance of a basket of underlyers. The market price for different types of underlyer may move in opposite directions. As a result, the level of the underlyers to which the note is linked may move such that the underlyer performance of one or more basket underlyers may offset or be offset by the underlyer performance of one or more of the other basket underlyers, which ultimately may result in a decrease in the overall return on the note or no interest payments on your note.

If the Level of an Underlyer Changes, the Market Price of an Indexed Note May Not Change in the Same Manner

An indexed note may trade quite differently from the performance of the relevant underlyer or underlyers. Changes in the level of the underlyer may not result in a comparable change in the market price of your note. Some of the other reasons for this disparity are discussed above under "— Considerations Relating to Notes Generally — The Market Price of Any Notes We May Issue May Be Influenced by Many Unpredictable Factors and If You Buy a Note and Sell It Prior to the Stated Maturity Date, You May Receive Less Than the Face Amount of Your Note".

If You Purchase an Indexed Note, You Will Have No Rights with Respect to any Underlyer, Securities or Other Underlyer Components to which Your Note is Linked.

Investing in an indexed note will not make you a holder of the underlyer, any securities that comprise the underlyer, or other underlyer components with respect thereto. As a result, you will not have any voting rights, any right to receive dividends or other distributions or any other rights with respect to any of the underlyer components. Your note will be paid in cash, and you will have no right to receive delivery of any such underlyer components.

Special Considerations Relating to Indexed Notes Linked to Stock Underlyers

An Underlyer to Which an Indexed Note Is Linked Could Be Changed or Become Unavailable

Some underlyers compiled by third parties may consist of or refer to several or many different securities or currencies or other instruments or measures. The compiler of such an underlyer typically reserves the right to alter the composition of the underlyer and the manner in which the value of the underlyer is calculated. An alteration may result in a decrease in the value of or return on an indexed note that is linked to the underlyer. The underlyers for our indexed notes may include published underlyers of this kind or customized underlyers developed by us or our affiliates in connection with particular issues of indexed notes.

A published underlyer may become unavailable, or a customized underlyer may become impossible to calculate in a normal manner, due to events such as war, natural disaster, cessation of publication of the underlyer or a suspension or disruption of trading in one or more securities or currencies or other instruments or measures on which the underlyer is based. If an underlyer becomes unavailable or impossible to calculate in a normal manner, the terms of a particular indexed note may allow us to delay determining the amount payable as principal or interest on an indexed note or may use an alternative method to determine the value of the unavailable underlyer. Alternative methods of valuation are generally intended to produce a value similar to the value resulting from reference to the relevant underlyer. However, it is unlikely that any alternative method of valuation we use will produce a value identical to the value that the actual underlyer would produce. If we use an alternative method of valuation for a note linked to an underlyer of this kind, the value of the note, or the rate of return on it, may be lower than it otherwise would be.

Some indexed notes are linked to underlyers that are not commonly used or have been developed only recently. The lack of a trading history may make it difficult to anticipate the volatility or other risks associated with an indexed note of this kind. In addition, trading in these underlyers or their underlying stocks or currencies or other instruments or measures, or options or futures contracts on these stocks or currencies or other instruments or measures, may be limited, which could increase their volatility and decrease the value of the related indexed notes or the rates of return on them.

If You Purchase an Indexed Note, the Return on the Note Will Not Reflect the Return or Any Distributions, Dividends or Other Payments Made on Any Underlyer Components

In the case of an indexed note, the sponsor of each underlyer to which the note is linked will calculate the level of the relevant underlyer by reference to the market prices of the underlyer components with respect thereto included in that underlyer, without taking account of the value of any distributions, dividends or other payments. As a result, if you invest in an indexed note, the return on your note will not reflect the return you would realize if you actually owned the underlyer components and received the distributions, dividends or other payments made on them.

Underlyers of Emerging Markets May be Volatile and Unstable

Where the applicable final terms of the notes reference one or more emerging market stock underlyers, purchasers of such notes should be aware that the political and economic situation in countries with emerging economies or stock markets may be undergoing significant evolution and rapid development, and such countries may lack the social, political and economic stability characteristic of more developed countries, including a significant risk of currency value fluctuation. Such instability may result from, among other things, authoritarian governments, or military involvement in political and economic decision-making, including changes or attempted changes in governments through extra-constitutional means; popular unrest associated with demands for improved political, economic or social conditions; internal insurgencies; hostile relations with neighboring countries; and ethnic, religious and racial disaffections or conflict. Certain of such countries may have in the past failed to recognize private property rights and have at times nationalized or expropriated the assets of private companies. As a result, the risks from investing in those countries, including the risks of nationalization or expropriation of assets, may be heightened. In addition, unanticipated political or social developments may affect the values of an underlying asset investment in those countries. The small size and inexperience of the securities markets in certain countries and the limited volume of trading in securities may make the underlying assets illiquid and more volatile than investments in more established markets. There may be little financial or accounting information available with respect to local issuers, and it may be difficult as a result to assess the value or prospects of the underlyers.

The Policies of an Underlyer Sponsor and Changes Affecting an Underlyer or Underlyers or Any of Its Components Could Affect the Amount Payable on an Indexed Note and Its Market Value

The policies of an underlyer sponsor concerning the calculation of the underlyer level, additions, deletions or substitutions of underlyer components and the manner in which changes affecting the underlyer components or their issuers, such as dividends, reorganizations or mergers, are reflected in the underlyer level could affect the underlyer level and, therefore, the amount payable on any indexed notes we may issue on the stated maturity date and the market value of any such notes prior to such date. The amount payable on an indexed note and its market value could also be affected if the underlyer sponsor changes these policies, for example, by changing the manner in which it calculates the underlyer level, or if the underlyer sponsor discontinues or suspends calculation or publication of the underlyer level, in which case it may become difficult to determine the market value of the note. If events such as these occur or if the underlyer level is not available on any relevant observation date because of a market disruption event or for any other reason, the calculation agent — which initially will be Goldman Sachs International, our affiliate — may determine the underlyer level on any such determination date — and thus the amount payable on the stated maturity date — in a manner it considers appropriate, in its sole discretion.

There Is No Affiliation Between the Issuers of Any of the Underlying Securities Contained in an Equity or Debt Underlyer Included in an Indexed Note and Us, and We Are Not Responsible for Any Disclosure by Such Issuers

We are not affiliated with any of the issuers of the securities which are included in any of the equity or debt indices included in an underlyer, or the sponsor of any of these underlyers. We and our affiliates may currently or from time to time in the future engage in business with the issuers of other underlying securities included in any of the equity or debt underlyers included in an indexed note. Nevertheless, neither we nor any of our affiliates assumes any responsibility for the adequacy or accuracy of any publicly available information about any issuers of underlying securities. You, as an investor in a note, should make your own investigation into the underlyers and the issuers of the underlying securities that make up the relevant underlyer or underlyers. See the applicable final terms for additional information about the relevant underlyer or underlyers to which a particular note is linked.

Neither the sponsors of any of the relevant underlyer or underlyers included in an indexed note nor any of the issuers of the underlying securities as underlyer sponsor of any underlyer published by it are involved in any offering of notes in any way and none of them has any obligation of any sort with respect to an indexed note. Neither the sponsors of the underlyers nor any of the issuers of the underlying securities have any obligation to take your interests into consideration for any reason, including in taking any corporate actions that might affect the market price for your note. Any of the sponsors of any of the underlyers may decide to discontinue calculating and publishing such underlyer, which would mean that the calculation agent, which unless we indicate in the applicable final terms will be one of our affiliates, would have discretion in making determinations with respect to such underlyer.

Payments on Notes That Reference U.S. Equities May Be Subject to U.S. Tax

Financial instruments that directly or indirectly reference the performance of U.S. equities (including an underlyer or basket that includes U.S. equities) may be subject to withholding tax under Section 871(m) of the Code. While notes issued pursuant to this Base Prospectus will not be subject to withholding under these rules, a holder may still be subject to Section 871(m) tax in respect of the notes in certain limited circumstances even when no withholding is required. Prospective holders of such notes should consult the discussion below under "Taxation – United States Taxation – Dividend Equivalent Payments" for further information.

Special Considerations Relating to UDI-Linked Notes

The Final Redemption Amount You Receive on the Stated Maturity Date May Be Less than the Face Amount of Your Note

If your final terms specify the "UDI-Linked Floor" to be "Not Applicable", then the amount payable on the stated maturity date on any UDI-linked note will be the final redemption amount, which will be an amount equal to the product of the UDI-Linked Notional Amount times the UDI Index Level for the Observation Date, plus any interest amount payable on the stated maturity date. The UDI is a MXN equivalent unit of account indexed to inflation published by the Index Sponsor. The level of Mexican inflation as reflected in the UDI Index has been volatile historically and a decrease in the level of Mexican inflation as of the Observation Date below the Initial Index Level will adversely affect the amount payable at maturity.

The Final Redemption Amount and Interest Amount on Your Notes Will Not Be Affected by the UDI Index Level for Any Date Other Than for the Observation Date and the Relevant Interest Determination Dates, Respectively

The final redemption amount and any interest amount that may be paid on your UDI-linked notes will be determined based on the UDI Index Level for the Observation Date and the relevant interest determination dates (if any), respectively. Although the UDI Index Level at other times during the life of your note may be greater than for the Observation Date or any interest determination date, you will not benefit from the UDI Index Level at any time other than for such dates. A decrease in the UDI Index Level as of an interest determination date below the Initial Index Level may result in low interest payments on the note. In addition, the overall return on the note may be less than the amount you would have earned by investing the face amount of the note in a non-indexed debt security that bears interest at a prevailing market fixed or floating rate.

The Level of Inflation in Mexico May Decrease Below the Current Level Which May Adversely Affect the Payment Amount on Your Notes

The level of inflation in Mexico may decrease below the current level, and historical Mexican inflation trends may not continue. As a result, the UDI Index Level as calculated for the Observation Date or an interest determination date (if any) may be lower than it would have been had historical trends continued, and you may therefore receive a lower payment amount on your note.

Defined terms used in this section "– Special Considerations Relating to UDI-Linked Notes" shall have the meanings set forth under "General Note Conditions – Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" below.

Special Considerations Relating to Indexed (Range Accrual) Notes

If the Level of the Underlyer Daily Fixing on the Underlyer Daily Fixing Date Applicable to Any Calendar Day Falls Outside of the Accrual Range for that Underlyer, No Interest Will Accrue for Such Day for the Range Accrual Note

Because of the formula we use to calculate the interest rate applicable to range accrual notes, in the event that for any day on which interest otherwise would accrue on a range accrual note the underlyer daily fixing for the underlyer, calculated as of the applicable underlyer daily fixing date, falls outside of its accrual range, no interest will accrue for such day. Therefore, if the level of the underlyer daily fixing falls outside of its accrual range for each day in the interest periods, you will receive no interest payment for such period. Even if you receive some interest payments on some or all of the interest payment dates, the overall return you earn on your notes may be less than you would have earned by investing in a non-range accrual debt security of a comparable maturity that bears interest at a prevailing market rate.

If the interest payments on a range accrual note are linked to a foreign currency exchange rate or rates, if any currency that is a component of such rate appreciates or depreciates, as the case may be, against the other currency that is a component of such foreign currency exchange rate, to a level where the applicable foreign currency exchange rate falls outside of its respective accrual range, your note will not accrue interest on such days. Even if you receive some interest payments on some or all of the interest payment dates, the overall return you earn on your notes may be less than you would have earned by investing in a non-range accrual debt security of a comparable maturity that bears interest at a prevailing market rate.

Special Considerations Relating to Indexed (Digital) Notes

You May Not Receive any Interest on Any Interest Payment Date

Whether you receive an interest payment on any interest payment date will depend on the performance of the relevant index or indices relative to their respective barrier levels. Your final terms will specify for each relevant index a performance condition ("l*ess than*"; "*greater than*"; "*less than* or *equal to*"; "*greater than* or *equal to*") with respect to each applicable barrier level. If the index performance of any index does not meet the specified performance condition with respect to any interest period, you will not receive an interest payment for that interest period. If this occurs in respect of each interest payment date, you will never receive any interest payments and the overall return you earn on your notes will be zero and such return will be less than you would have earned by investing in a note that bears interest at the prevailing market rate.

The Interest Payments on Your Notes Will Be Limited and Will Not Reflect the Actual Performance of the Underlyers from Observation Date to Observation Date

The interest payment for each interest payment date is different from, and may be less than, an interest payment determined based on the percentage difference of the closing levels of the underlyers between the initial valuation date (or initial averaging dates) and any observation date (or averaging dates) or between two observation dates (or sets of averaging dates). Accordingly, the interest payments, if any, on the notes will be limited, and may be less than the return you could earn on another instrument linked

to the underlyers that pay interest payments based on the performance of the underlyers from the trade date to any observation date or from observation date to observation date.

If the "Worst-Of" Condition Applies to your Indexed (Digital) Notes, Interest Payments On Your Notes Will Be Determined by Reference to the Worst Performing Index Only

If "Worst-Of" is applicable to your Indexed (Digital) note, for each relevant interest period, the index performance of only the worst performing index will be used to determine whether the index performance condition has been met for such interest period, and therefore whether you will receive an interest payment for such interest period. For any interest period, you will receive an interest payment only if the index performance of each of the specified indices meets or exceeds its corresponding barrier level, as specified in your final terms. Even if the index performance of one or more of the indices to which your note is linked meets or exceeds its corresponding barrier level, as applicable, if the index performance of the worst performing index does not meet or exceed its corresponding barrier level, you will not receive any interest payment for such interest period.

If the "Multiple Conditions" Condition Applies to your Indexed (Digital) Notes, You Will Receive an Interest Payment for Any Interest Period Only If All the Indexes Satisfy Their Respective Index Performance Conditions

If "Multiple Conditions" is applicable to your Indexed (Digital) note, for each relevant interest period, you will receive an interest payment only if all the indices satisfy their respective index performance conditions for such interest period. The index performance condition may require that the relative index either appreciate or depreciate in value in order for interest to be paid. In such a case, if the relevant index appreciates in value with as of any observation date, you will not receive any interest payment on the corresponding interest payment date, even though the value index to which your note is linked has increased. For any interest period, even if the index performance of one or more of the indices to which your note is linked meets the performance measure specified with respect to the applicable barrier level, if the index performance of any index does not meet the specified performance level, you will not receive any interest payment for such interest period.

Special Considerations Relating to Indexed (OutPerformance) Notes

The Interest Payments on Your Notes Will Be Limited and Will Not Reflect the Actual Performance of the Underlyers from Observation Date to Observation Date. You May Receive No Interest Payments Even if Both Indices Increase or Both Indices Decline.

Your return on the notes depends on the relative performances of the underlyers. If both underlyers have increased as of any observation date, you will not receive any interest on the related interest payment dates if the percentage increase in the level of the primary underlyer has been less than that of the secondary underlyer plus or minus the performance factor specified in your final terms. Likewise, if both underlyers have declined as of any observation date, you will not receive any interest on the related interest payment dates if the percentage decrease of the primary underlyer has been more than that of the secondary underlyer plus or minus a performance factor to be specified in your final terms.

Special Considerations Relating to Indexed (Participation) Notes

You May Lose Part of Your Investment in the Notes

The amount payable at maturity (final redemption amount) and/or interest payable on an indexed (participation) note will be determined by reference to the price, value or level of one or more stock indices, interest rates, foreign currency exchange rates and/or one or more baskets of any of these items. We refer to each of these as an "underlyer" or "underlyers". The direction and magnitude of the change in the value of the relevant underlyer will determine the principal amount of an indexed note payable at maturity and/or the amount of interest payable on the interest payment date and the cash value. The terms of a particular indexed (participation) note may not provide for the return of the face amount at maturity or a minimum interest rate, and we may issue notes under which investors could lose part of their investment. Thus, if

you purchase an indexed (participation) note that does not provide for the return of 100% of your principal at maturity, you may lose part of the principal invested and may receive no interest on your investment.

Also, the market price of your notes prior to the stated maturity date may be significantly lower than the purchase price you pay for your notes. Consequently, if you sell your notes before the stated maturity date, you may receive far less than the amount of your investment in the notes.

Risk Factors Related to Notes Linked to Benchmark Underlyers

Regulation and reform of "benchmarks", including EURIBOR and other interest rate, Equity, Foreign Exchange Rate and Other Types of benchmarks may cause such "benchmarks" to perform differently than in the past, or to disappear entirely, or have other consequences which cannot be predicted

EURIBOR and other interest rate underlyers which are deemed to be "benchmarks" are the subject of ongoing national and international regulatory reform. These reforms may cause such "benchmarks" to perform differently than in the past, or to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on the return on, value of and market for any notes linked to such a "benchmark".

EURIBOR and certain Overnight Rates (as defined under the section entitled "Description of the Program—Interest Rates— Floating Rate Notes —Overnight Rate Notes") are used as the floating leg in the calculation of certain swap rates. Consequently, if the calculation methodologies of EURIBOR and/or the Overnight Rates are reformed or the rate used as the floating leg in the calculation of certain swap rates is discontinued, this could have a material effect on the calculation of the Relevant Swap Rate (as defined under the section entitled "Description of the Program—Interest Rates—Floating Rate Notes—CMS Rate Notes"). For a further discussion of risks related to Overnight Rates, see "—Certain Risks Related to Overnight Risk Free Rates".

On 17 May 2016, the Council of the European Union adopted the Benchmark Regulation. The Benchmark Regulation entered into force in June 2016 and became fully applicable in the EU on January 1, 2018. Regulation (EU) 2016/1011 as it forms part of U.K. domestic law by virtue of the EUWA and as amended by the Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 has applied in the UK since the end of the Brexit transition period on 31 December 2020 (the "UK Benchmark Regulation"). The Benchmark Regulation and the UK Benchmark Regulation apply to the contribution of input data to a "benchmark", the provision or administration of a "benchmark" and the use of a "benchmark" in the EU and the UK, respectively. Among other things, it (a) requires benchmark administrators to be authorized or registered as such and to comply with extensive requirements relating to the administration of "benchmarks" and (b) prohibits certain uses by EU or UK supervised entities of "benchmarks" provided by EU administrators which are not authorized or registered in accordance with the Benchmark Regulation (or, if located outside of the EU or the UK, deemed equivalent or recognised or endorsed). The scope of the Benchmark Regulation and the UK Benchmark Regulation is wide and, in addition to so-called "critical benchmark" underlyers such as EURIBOR, will apply to many other interest rate underlyers which are referenced in the notes. The Benchmark Regulation and/or the UK Benchmark Regulation, as applicable, could have a material impact on notes linked to a "benchmark" rate or underlyer, including in any of the following circumstances:

- a rate or underlyer which is a "benchmark" may not be used in certain ways by an EU or UK supervised entity if (subject to applicable transitional provisions) its administrator does not obtain authorisation or registration (or, if a non-EU or non-UK entity, does not satisfy the "equivalence" conditions and is not "recognised" pending an equivalence decision). In such event, depending on the particular "benchmark" and the applicable terms of the notes, the notes could be de-listed, adjusted, redeemed prior to maturity or otherwise impacted; and

- the methodology or other terms of the "benchmark" could be changed in order to comply with the terms of the Benchmark Regulation and/or the UK Benchmark Regulation, and such changes could have the effect of reducing or increasing the rate or level or affecting the volatility

of the published rate or level, and could lead to adjustments to the terms of the notes, including the calculation agent's determination of the rate or level in its discretion.

The Benchmark Regulation, the UK Benchmark Regulation and any other international, national or other proposals for reform or the general increased regulatory scrutiny of "benchmarks" could increase the costs and risks of administering or otherwise participating in the setting of a "benchmark" and complying with any such regulations or requirements. Such factors may have the effect of discouraging market participants from continuing to administer or contribute to certain "benchmarks", trigger changes in the rules or methodologies used in certain "benchmarks" or lead to the disappearance of certain "benchmarks". The disappearance of a "benchmark" or changes in the manner of administration of a "benchmark" could result in adjustment to the terms and conditions, early redemption, discretionary valuation by the calculation agent or change in the relevant benchmark by the calculation agent, delisting or other consequence in relation to notes linked to such "benchmark". Any such consequence could have a material adverse effect on the return on, value of and market for any such notes.

Certain Risks Related to Overnight Risk Free Rates

We may issue floating rate notes linked to overnight risk-free rates, such as SOFR, SONIA, €STR, SARON and TONA.

Overnight Rates, including the applicable Reference Rate Compounded Index (as defined under the section entitled "Description of the Program—Interest Rates— Floating Rate Notes —Overnight Rate Notes"), are published and calculated by third parties based on data received from other sources and we have no control over their respective determinations, calculations or publications. The administrators of Overnight Rates may make methodological or other changes that could change the value of the relevant Overnight Rate, including changes related to the method by which such Overnight Rate is calculated, eligibility criteria applicable to the transactions used to calculate such Overnight Rate, or timing related to the publication of such Overnight Rate. In addition, the administrators of Overnight Rates may alter, discontinue or suspend calculation of dissemination of such Overnight Rates at any time without notice. There can be no guarantee that the Overnight Rates will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the notes (or that any applicable fallback provisions will provide a rate which is economically equivalent). If the manner in which the Overnight Rates are calculated changes, that change may result in a reduction of the amount of interest payable on Overnight Rate Notes (as defined under the section entitled "Description of the Program—Interest Rates— Floating Rate Notes —Overnight Rate Notes") and the trading price of such notes.

The market continues to develop in relation to such Overnight Rates as reference rates in capital markets and their adoption as alternatives to the relevant interbank offered rates ("IBORs"). Overnight Rate Notes may not have an established trading market, and an established trading market may never develop or may not be very liquid. Additionally, the use of Overnight Rates as a base rate for notes is nascent, and may be subject to change and development, both in terms of the substance of the calculation and in the development and adoption of market infrastructure for the issuance and trading of Overnight Rate Notes. Market conventions for calculating the interest rate for notes referencing Overnight Rates continue to evolve and market participants and relevant working groups are exploring alternative reference rates based on risk-free rates. The market or a significant part thereof may adopt an application of Overnight Rates that differs significantly from that set out and used in the terms and provisions relating to Overnight Rates Notes. The use of the specific formula used to calculate the relevant Overnight Rate with respect to a series of notes may not be widely adopted by other market participants, if at all. If the market adopts a different calculation method, that would likely adversely affect the market price of the applicable series of Overnight Rate Notes. In the future, we may also issue notes referencing Overnight Rates that differ materially in terms of interest determination when compared with any previous notes referencing the relevant Overnight Rate. Market terms for Overnight Rate Notes, such as the spread over the base rate reflected in interest rate provisions, the manner of calculating a forward-looking term rate, or the manner of compounding the base rate, may evolve over time, and trading prices of the relevant notes may be lower than those of later-issued Overnight Rate Notes as a result. Similarly, if the Overnight Rates do not prove to be widely used in notes, the trading price of Overnight Rate Notes may be lower than those of notes linked to rates that are more widely used. Investors in the notes may not be able to sell the notes at all or may not be able to sell

the 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.

Overnight Rates have a limited performance history and it is not possible to predict the future performance of such Overnight Rates. As a consequence, no future performance of the relevant Overnight Rate or notes referencing such Overnight Rate may be inferred from any of the hypothetical or actual historical performance data. In addition, the composition and characteristics of the Overnight Rates are not the same and are different from the composition and characteristics of their respective IBOR counterparts. For example, the Overnight Rates are backward-looking overnight rates measuring the rate paid by banks on overnight wholesale funds, compared to IBORs which are forward-looking term rates measuring the cost of borrowing for a future period. Certain Overnight Rates, such as SONIA, €STR and TONA, are unsecured overnight rates, whereas others, such as SOFR and SARON, are secured overnight rates. As a result, there can be no assurance that the Overnight Rates (or any base rate derived from any of them) will perform in the same way as their respective IBOR counterparts would have at any time, including, without limitation, as a result of changes in interest and yield rates in the market, market volatility or global or regional economic, financial, political, regulatory, judicial or other events.

Furthermore, interest on Overnight Rate Notes will be determined on a date near the end of the relevant interest period. Therefore, it may be difficult for investors in Overnight Rate Notes to reliably estimate the amount of interest which will be payable on such notes on the relevant interest payment dates. Further, if such notes become due and payable prior to their stated maturity, the rate of interest payable shall be determined by reference to a shortened period ending prior to the date on which such notes become due and payable or are scheduled for redemption.

In addition, the manner of adoption or application of the Overnight Rates as a base rate for Overnight Rate Notes may differ materially when compared with the application and adoption of such Overnight Rates in other markets, such as the derivatives and loan markets. Investors in the notes should carefully consider how any mismatch between the adoption of Overnight Rates as a reference rate 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 Overnight Rate Notes.

Certain Additional Risks Related to SOFR

On June 22, 2017, the Alternative Reference Rates Committee ("ARRC") convened by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York identified SOFR, a broad U.S. treasuries repurchase financing rate to be published by the Federal Reserve Bank of New York, as the rate that, in the consensus view of the ARRC, represented best practice for use in certain new U.S. dollar derivatives and other financial contracts. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. treasury securities and has been published by the Federal Reserve Bank of New York since April 2018. The Federal Reserve Bank of New York has also published historical indicative Secured Overnight Financing Rates going back to 2014. Investors should not rely on any historical changes or trends in SOFR as an indicator of future changes in SOFR.

Because SOFR is published by the Federal Reserve Bank of New York based on data received from other sources, we have no control over its determination, calculation or publication. The Federal Reserve Bank of New York notes on its publication page for SOFR that use of SOFR is subject to important limitations and disclaimers, including that the Federal Reserve Bank of New York may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. There can be no guarantee, particularly given its relatively recent introduction, that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in SOFR Notes (as defined under "General Note Conditions — Interest Rates — Floating Rate Notes — Overnight Rate Notes — Effect of Benchmark Transition Event on SOFR Notes"). If the manner in which SOFR is calculated is changed, that change may result in a reduction of the amount of interest payable on SOFR Notes and the trading prices of such notes. In addition, the Federal Reserve Bank of New York may withdraw, modify or amend published SOFR data in its sole discretion and without notice. The interest rate for any day will not be adjusted for any modifications or amendments to SOFR data that the Federal Reserve Bank of New York may publish after the interest rate for that day has been determined.

Additionally, daily changes in SOFR have, on occasion, been more volatile than daily changes in other benchmark or market rates. Although occasional increased daily volatility in SOFR would not necessarily lead to more volatile interest payments, the return on and value of SOFR Notes may fluctuate more than floating rate notes that are linked to less volatile rates. In addition, the volatility of SOFR has reflected the underlying volatility of the overnight U.S. Treasury repo market. The Federal Reserve Bank of New York has at times conducted operations in the overnight U.S. Treasury repo market in order to help maintain the federal funds rate within a target range. There can be no assurance that the Federal Reserve Bank of New York will continue to conduct such operations in the future, and the duration and extent of any such operations is inherently uncertain. The effect of any such operations, or of the cessation of such operations to the extent they are commenced, is uncertain and could be materially adverse to investors in SOFR Notes.

Since SOFR is a relatively new reference rate, SOFR Notes may not have an established trading market when issued and an established trading market in each case may never develop or may not be very liquid. Market terms for SOFR Notes, such as the spread over the base rate reflected in interest rate provisions, the manner of calculating a forward-looking term rate or the manner of compounding the base rate, may evolve over time, and trading prices of such securities may be lower than those of later-issued SOFR Notes as a result. Similarly, if SOFR does not prove to be widely used in floating rate notes, the trading price of SOFR Notes may be lower than those of notes linked to reference rates that are more widely used. Investors in such notes may not be able to sell such notes at all or may not be able to sell such 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.

Benchmark Rate Discontinuance Or Prohibition On Use May Lead to Adjustments To The Terms Of The Notes

If the applicable final terms specify “Original Primary Rate Fallback” to be “Applicable” and the calculation agent determines that an original primary rate event and its related adjustment date have occurred with respect to the base rate designated as an original primary rate, then the calculation agent may adjust the terms and conditions of the notes (without your consent) to account for such event and select a replacement primary rate as set forth under the section entitled “Description of the Program—Features Common to All Notes—Interest Rates—Floating Rate Notes—Overnight Rate Notes—Effect of Original Primary Rate Event on Certain Floating Rate Notes”. The selection of a replacement primary rate, any replacement primary rate amendments and decisions, determinations or elections made by the calculation agent in connection with implementing the replacement primary rate, could result in adverse consequences to the return on, value of and market for the notes. There is no assurance that the characteristics of any replacement primary rate will be similar to the relevant original primary rate, or that any replacement primary rate will produce the economic equivalent of such original primary rate. Furthermore, the exercise of discretion by Goldman Sachs International, as calculation agent, may present the Issuer and/or Goldman Sachs International with a conflict of interest.

If, with respect to any note linked to SOFR, the calculation agent determines on or prior to the relevant interest determination date that a benchmark transition event and its related benchmark replacement date have occurred with respect to SOFR, then the benchmark transition provisions will thereafter apply to all determinations of the interest payable on SOFR Notes. In accordance with the benchmark transition provisions, after a benchmark transition event and its related benchmark replacement date have occurred, the interest that will be payable for each interest period on SOFR Notes will be determined by reference to the benchmark replacement and any applicable spread. If the calculation agent has determined that a benchmark transition event and its related benchmark replacement date have occurred with respect to SOFR, the calculation agent in its sole discretion may determine the benchmark replacement conforming changes in a manner that is consistent with industry-accepted practices for such benchmark replacement (each term as defined under “General Note Conditions — Interest Rates — Floating Rate Notes — Overnight Rate Notes — Effect of Benchmark Transition Event on SOFR Notes”).

Risk Factors Associated with Foreign Exchange Rates

An Investment in a Foreign Currency Note Involves Currency-Related Risks

Investment in a note whose principal and/or interest is payable in a currency other than your own principal currency, which other currency we refer to as a "foreign currency", or a note for which the amounts you receive may be determined in whole or in part by reference to a foreign currency or property denominated in or otherwise linked to a foreign currency may entail significant risks that may not be associated with a similar investment in a note payable solely in your own principal currency. These risks include the possibility of significant changes in rates of exchange between your currency and the various foreign currencies or composite currencies and the possibility of the imposition or modification of foreign exchange controls or other conditions by foreign governments. These risks generally depend on factors over which we have no control, such as financial, economic, military and political events and the supply of and demand for the relevant currencies in the global markets. Notes of this kind may not be an appropriate investment for investors who are unsophisticated with respect to foreign currency transactions. For example, if the foreign currency in which your note is payable depreciates against your own currency, the equivalent in your own currency of the amount you receive at maturity may be less than your own currency equivalent of the amount you invested. Furthermore, currency fluctuations during the life of your note may adversely affect the equivalent in your own currency of the value of your note. Interest rates in respect of securities denominated in foreign currencies may fluctuate differently from the way in which interest rates in respect of securities in your own currency fluctuate which may adversely affect the market price of your note. Ultimately, the return on your foreign currency note determined by reference to your own currency may be significantly less than the return had you made your original investment in a security denominated in your own currency.

Changes in Foreign Currency Exchange Rates Can Be Volatile and Unpredictable

Rates of exchange between currencies have been highly volatile, and this volatility may continue and perhaps spread to other currencies in the future. Fluctuations in currency exchange rates could adversely affect an investment in a note denominated in, or whose value is otherwise linked to, a foreign currency. Depreciation of the specified currency against your own principal currency could result in a decrease in the market value of your note, including the equivalent in your own currency of the amount you receive at maturity. Depreciation of the specified currency against your own principal currency could result in a loss to the investor on principal currency equivalent basis.

Exchange rates are the result of the supply of, and the demand for, the relevant currencies. Changes in exchange rates result over time, and may vary considerably during the life of an investment denominated in or otherwise relating to a foreign currency, from the interaction of many factors directly or indirectly affecting economic and political conditions in the country or area of the applicable currency, including economic and political developments in other countries.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments;
- the extent of governmental surpluses or deficits in the relevant countries; and
- other financial economic, military and political factors.

All of these factors are, in turn, sensitive to the monetary, fiscal and trade policies pursued by the government of the applicable country and other countries important to international trade and finance.

Regulators in various countries are in the process of investigating the potential manipulation of published currency exchange rates. If such manipulation has occurred or is continuing, certain published exchange rates may have been, or may be in the future, artificially lower (or higher) than they would

otherwise have been. Any such manipulation could have an adverse impact on any payments on, and the value of, your notes and the trading market for your notes. In addition, we cannot predict whether any changes or reforms affecting the determination or publication of exchange rates or the supervision of currency trading will be implemented in connection with these investigations. Any such changes or reforms could also adversely impact your notes.

Government Policy Can Adversely Affect Foreign Currency Exchange Rates and an Investment in a Foreign Currency Note

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Thus, a special risk in purchasing foreign currency notes may be that their yields or payouts could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting foreign currency exchange rates, political, military or economic developments in the country issuing the specified foreign currency for a note or elsewhere could lead to significant and sudden changes in the foreign currency exchange rate between the foreign currency and your principal currency. These changes could affect your principal currency equivalent value of the note as participants in the global currency markets move to buy or sell the foreign currency or your own principal currency in reaction to these developments.

Governments have imposed from time to time and may in the future impose exchange controls or other conditions, including taxes, with respect to the exchange or transfer of a specified currency that could affect exchange rates as well as the availability of a specified currency for a note at its maturity or on any other payment date. In addition, the ability of a holder to move currency freely out of the country in which payment in the currency is received or to convert the currency at a freely determined market rate could be limited by governmental actions.

We May Not Adjust Any Notes to Compensate for Changes in Foreign Currency Exchange Rates

Except as described below, we will not make any adjustment or change in the terms of any note in the event of any change in exchange rates for the relevant currency, whether in the event of any devaluation, revaluation or imposition of exchange or other regulatory controls or taxes or in the event of other developments affecting that currency or any other currency. Consequently, investors in foreign currency notes will bear the risk that their investment may be adversely affected by these types of events.

Non-U.S. Dollar Notes May Permit Us to Make Payments in U.S. Dollars or Delay Payment If We Are Unable to Obtain the Specified Currency

Notes payable in a currency other than U.S. dollars may provide that, if the other currency (or its successor) is not available to us at or about the time when a payment on the notes comes due because of circumstances beyond our control, we will be entitled to make the payment in U.S. dollars or delay making the payment. These circumstances could include the imposition of exchange controls or our inability to obtain the other currency because of illiquidity, inconvertibility or non-transferability of the other currency or other disruptions in the currency markets. A determination of this kind may be based on limited information and would involve significant discretion on the part of the calculation agent. As a result, the value of the payment in U.S. dollars an investor would receive on the payment date may be less than the value of the payment the investor would have received in the other currency if it had been available, or may be zero. These matters are discussed under "General Note Conditions — Features Common to All Notes — Currency of Notes" and " General Note Conditions — Payment Mechanics for Notes" below. In addition, the unavailability of the specified non-U.S. currency will expose you to currency risks with respect to the U.S. dollar which would not have existed had the specified non-U.S. currency been available.

Furthermore, a government may impose extraordinary taxes on transfers of a currency. If that happens we will be entitled to deduct these taxes from any payment on securities payable in that currency.

In a Lawsuit for Payment on a Non-U.S. Dollar Note, an Investor May Bear Foreign Currency Exchange Risk

The notes will be governed by New York law. Under Section 27 of the New York Judiciary Law, a state court in the State of New York rendering a judgment on a note denominated in a foreign currency other than U.S. dollars would be required to render the judgment in the specified currency; however, the judgment would be converted into U.S. dollars at the exchange rate prevailing on the date of entry of the judgment. Consequently, in a lawsuit for payment on a note denominated in a currency other than U.S. dollars, investors would bear currency exchange risk until judgment is entered, which could be a long time. You will therefore be exposed to currency risk with respect to both the U.S. dollar and, if applicable, the foreign currency.

In courts outside of New York, investors may not be able to obtain judgment in a specified currency other than U.S. dollars. For example, a judgment for money in an action based on a non-U.S. dollar note in many other U.S. federal or state courts ordinarily would be enforced in the United States only in U.S. dollars. The date used to determine the rate of conversion of the currency in which any particular note is denominated into U.S. dollars will depend upon various factors, including which court renders the judgment.

Determinations Made By the Exchange Rate Agent Are Made At Its Sole Discretion and May Adversely Affect the Market Price of the Notes

The exchange rate agent will have discretion in making various determinations that may adversely affect the market price of, or amounts payable under, notes denominated a specified currency other than U.S. dollars, including determinations with respect to any applicable successor currencies or exchange rates when the specified currency is not available (see "Payment Mechanics for Notes - How We Will Make Payments" below). All determinations made by the exchange rate agent shall be at its sole discretion (except to the extent it is expressly provided in this Base Prospectus that any determination is subject to approval by us) and, in the absence of manifest error, shall be conclusive for all purposes and will bind all holders of the notes and us. The exchange rate agent will not have any liability for its determinations.

Risk Factors Associated with Taxation

We Cannot Advise You of All of the Non-U.S. Tax Consequences of Owning or Trading Any Notes We May Issue

The tax consequences of investing in the notes may, in any jurisdiction where you are subject to tax, vary significantly and adversely from the type of taxation described in the summary of the principal U.S. federal income and estate tax consequences of notes to a U.S. alien holder in this Prospectus under "Taxation — United States Taxation" below. You may face significant tax rates on interest, different tax treatment when you transfer your securities, more burdensome reporting obligations and wealth or similar taxes. These tax consequences and others could be material and adverse and therefore you should consult your own legal and tax advisors with respect to the tax characterization in your taxing jurisdiction(s) of an investment in the notes.

Unless Otherwise Specified in the Applicable Final Terms, We Will Not Compensate Holders If We Have to Deduct Taxes from Payments on Any Notes We May Issue

With certain exceptions, as of the date of this Base Prospectus, payments on any notes we may issue are not subject to U.S. federal withholding or other tax provided that the holder is a U.S. alien holder. Withholding from payments on a note may be required if a holder fails to provide a completed Internal Revenue Service Form W-8BEN or W-8BEN-E. See the section entitled " Taxation — United States Taxation" below for more information.

Unless otherwise specified in the applicable final terms, we will not gross up any payments due on the notes and we will not compensate holders for any amount that may be withheld or due because of any withholding tax. Accordingly, during the term of the note, whether or not due to a change in law, if any withholding or other tax, assessment or other governmental charge is imposed on payments on the note

by the United States or any other jurisdiction or any political subdivision or taxing authority thereof or therein (including any payment upon redemption, repurchase or stated maturity of a note), and we are required to deduct that tax, charge or assessment from any payment we make on the note (including any payment upon redemption, repurchase or stated maturity of a note), we will make that payment only after making such deduction and will not pay holders any additional amounts to compensate them for the deduction.

Consequently, if you purchase a note in these circumstances and a deduction is required to be made, you will receive less than what you would otherwise have been entitled to receive as payment on your note on the stated maturity date. We cannot predict whether any such changes in law will occur during the term of any notes we may issue and, if they do occur, the amounts that may have to be deducted.

Foreign Account Tax Compliance Act (FATCA) Withholding May Apply to Payments on Your Notes, Including as a Result of the Failure of the Bank or Broker Through Which You Hold the Notes to Provide Information to Tax Authorities

Your notes could be subject to a U.S. withholding tax of 30% under a law (commonly known as "FATCA") that was enacted in 2010. This tax could apply if you or any non-U.S. person or entity that receives a payment (directly or indirectly) on your behalf (including a bank, custodian, broker or other payee, at any point in the series of payments made on your notes) does not comply with the U.S. information reporting, withholding, identification, certification, and related requirements imposed by FATCA. The payments potentially subject to this withholding tax include interest (including original issue discount) on the notes.

You should consult your own tax advisors regarding the relevant U.S. law and other official guidance on FATCA. You could be affected by this withholding if, for example, your bank or broker through which you hold the notes is subject to withholding because it fails to comply with these requirements. This might be the case even if you would not otherwise have been directly subject to withholding. Accordingly, you should consult your bank or broker about the likelihood that payments to it (for credit to you) will become subject to withholding in the payment chain.

We will not pay any additional amounts in respect of this withholding tax, so if this withholding applies, you will receive less than the amount that you would have otherwise received with respect to your notes. Depending on your circumstances, you may be entitled to a refund or credit in respect of some or all of this withholding. However, even if you are entitled to have any such withholding refunded, the required procedures could be cumbersome and significantly delay your receipt of any withheld amounts. For more information, see "Taxation — United States Taxation — Foreign Account Tax Compliance Withholding (FATCA)".

In addition, your notes may also be subject to other U.S. withholding tax as described in "Taxation — United States Taxation".

If We Redeem Your Notes or There Is an Adjustment upon a Change in Law, You May Receive Less than Your Initial Investment

If the calculation agent determines that (i) the performance by us and/or any of our affiliates under the notes and/or any related hedge positions has become unlawful or impractical in whole or in part for any reason or (ii) the performance under the notes will result in materially increased costs to us and/or any of our affiliates, then the calculation agent may make adjustments to the terms of your note as described under "General Note Conditions – Features Common to All Notes – Change in Law", which may result in the amount payable at maturity being reduced to or being valued at an amount less than your initial investment. If your final terms specify "Redemption Upon Change in Law" to be applicable, we may cancel such notes and, if permitted by applicable law, upon cancellation will pay the holder of such notes an amount equal to the non-scheduled early repayment amount of such notes, which will be determined by the calculation agent as described under "General Note Conditions – Redemption and Repayment – Non-Scheduled Early Repayment Amount". We may also take such action if the calculation agent determines that the performance by us or by one of our affiliates under the notes and/or any related hedge positions (assuming such affiliate had been the issuer of the notes or party to any such hedging arrangement) would

be unlawful or impractical, or if, as a result of certain changes in the laws or regulations of any U.S. taxing authority, at any time on or after the applicable issue date or such other date as specified in the applicable final terms, we are obligated to pay, on the next succeeding interest payment date or maturity date, additional amounts, as described under "General Note Conditions — Redemption and Repayment — Payment of Additional Amounts" below, and that obligation cannot be avoided by the use of reasonable measures available to us.

The non-scheduled repayment amount may be less than the price at which you purchased your notes, the face amount of your notes or the market price you would have received for your notes if the change in law had not occurred and you sold your notes in the market on the non-scheduled early redemption date. Furthermore, you may not be able to reinvest the redemption proceeds at any effective interest rate as high as the interest rate or yield on the notes being redeemed. You should consider reinvestment risk in light of other investments available at that time. For more information, see "General Note Conditions – Redemption and Repayment – Redemption Upon Change in Law".

If "Fair Market Value" is specified in your final terms as the "Non-Scheduled Early Repayment Amount", the calculation agent will have significant discretion in determining the non-scheduled early repayment amount. The calculation agent may take into account such factors as it considers to be appropriate including, without limitation, our internal pricing models. Furthermore, the calculation agent may, in its reasonable discretion, adjust the amount payable to account for any reasonable expenses and costs of (or benefit to) the Issuer and/or its affiliates relating to the early redemption of the notes, including those relating to the unwinding of any underlying and/or related hedging arrangements and the hypothetical cost or benefit of replacing the amount of the funding provided by the notes at a reasonably equivalent maturity and ranking.

Unless stated otherwise in the applicable final terms, the calculation agent in respect of the notes is Goldman Sachs International, which may be presented with a conflict of interest of the kind described below under "– Considerations Relating to the Role of The Goldman Sachs Group, Inc. and its Affiliates – As calculation agent, Goldman Sachs International Will Have the Authority to Make Determinations That Could Affect the Market Price of Floating Rate Notes and Indexed Notes, When the Note Matures and the Amount Payable at Maturity" in connection with the determination of the non-scheduled early repayment amount.

Risk Factors Related to Conflicts of Interest Between Goldman Sachs and Purchasers of Notes

Distributors or Other Entities Involved in the Offer or Listing of the Notes May Have Potential Conflicts of Interest

Potential conflicts of interest may arise in connection with the distribution of the notes, as any distributors or other entities involved in the offer and/or the listing of the notes, as indicated in the applicable final terms, will act pursuant to a mandate granted by the Issuer and can receive commissions and/or fees on the basis of the services performed in relation to such offer and/or listing, and such conflicts of interest could be adverse to your interests as a purchaser of such notes.

As Calculation Agent, Goldman Sachs International Will Have the Authority to Make Determinations That Could Affect the Market Price of Floating Rate Notes and Indexed Notes, When the Note Matures and the Amount Payable at Maturity

As calculation agent, Goldman Sachs International will have discretion in making various determinations that affect the market price of floating rate and indexed notes, including all determinations regarding the relevant underlyer or underlyers (including, with respect to underlyers, adjustments, rebasing and substitution, among other factors, any successor underlyers and underlyer reference prices), market disruption events, exchange business days, observation dates, any other factors or events relevant to the calculation of amounts dependent on the performance of the underlyer or underlyers, business days, if applicable, interest amounts and interest payment dates, and the stated maturity, which could adversely affect the market price for the note and may present Goldman Sachs International with a conflict of interest of the kind described above under "— Our Business Activities May Create Conflicts of Interest Between

You and Us". See also "—Benchmark Rate Discontinuance Or Prohibition On Use May Lead To Adjustments To The Terms Of The Notes" for discussion of conflicts of interests that may arise in connection with the selection of replacement primary rates by the calculation agent.

Trading and Other Transactions by Us in Instruments Linked to an Underlyer or the Components of an Underlyer May Impair the Market Price of an Indexed Note

We, through Goldman Sachs International or one or more of our other affiliates, expect to hedge our obligations under an indexed note by purchasing some or all of the following: underlying securities (in the case of an indexed note linked to an equity or debt underlyer), and options or futures on any of the underlyers or underlyer components or other instruments linked to any of the underlyers or underlyer components. We also expect to adjust any such hedges by, among other things, purchasing or selling any of the foregoing, at any time and from time to time and to unwind such hedges by purchasing or selling any of the foregoing at any time. We may also enter into, adjust and unwind hedging transactions relating to other indexed notes whose returns are linked to one or more underlyers. Any of these hedging activities may affect the level of any of the underlyers — directly or indirectly by affecting the price of the underlyer components — and, therefore, may adversely affect the market price of the relevant notes. It is possible that we, through our affiliates, could receive substantial returns with respect to our hedging activities while the market price of the relevant notes may decline. You should read the discussion of use of proceeds in the applicable final terms for more information on the securities transactions in which we or one or more of our affiliates may engage.

Goldman Sachs International and our other affiliates may also engage in trading in one or more of the underlyer components or instruments linked to any of the underlyers or underlyer components included in an indexed note for their proprietary accounts, for other accounts under their management or to facilitate transactions, including, in the case of notes linked to an equity index, block transactions, on behalf of customers. Any of these activities of Goldman Sachs International or our other affiliates could affect the level of any of the underlyers — directly or indirectly by affecting the price of any underlyer components — and, therefore, could adversely affect the market price of the relevant notes. We may also issue, and Goldman Sachs International and our other affiliates may also issue or underwrite, other securities or financial or derivative instruments with returns linked to changes in the level of any of the underlyers or underlyer components. By introducing competing products into the marketplace in this manner, we and our affiliates could adversely affect the market price of the relevant notes.

The fiscal agency agreement governing notes we may issue under this Base Prospectus does not, with respect to indexed notes, impose any restriction on our ability or the ability of any of our affiliates to purchase or sell all or any portion of the underlyer components or instruments linked to those components or the underlyers.

Our Business Activities May Create Conflicts of Interest Between You and Us

As noted above, Goldman Sachs International and our other affiliates expect to engage in trading activities related to one or more of the underlyers included in indexed notes (and the relevant underlyer components, in the case of an underlyer that is an index) that are not for your account or on your behalf. These trading activities may present a conflict between your interest in an indexed note and the interests Goldman Sachs International or our other affiliates have in their proprietary accounts and in facilitating transactions, including, in the case of notes linked to an equity index, block trades, for their customers and in accounts under their management. These trading activities, if they influence the level of the relevant underlyer, could be adverse to your interests as a beneficial owner of an indexed note.

Goldman Sachs International and our other affiliates may, at present or in the future, engage in business with the issuers of the underlying securities contained in an equity or debt underlyer included in an indexed note, including by making loans to or equity investments in those companies or providing advisory services to them. These services could include merger and acquisition advisory services. Any such activities may present a conflict between the obligations of Goldman Sachs International or another of our affiliates and your interests as a beneficial owner of an indexed note. Moreover, one or more of our affiliates may have published or in the future expect to publish research reports with respect to one or more

of the issuers of the underlying securities contained in an equity or debt index included in an indexed note included in an indexed note. Any of these activities by any of our affiliates may affect the level of any of the underlyers and, therefore, the market price of the relevant notes.

Risk Factors Related to Regulatory Resolution Strategies and Long-Term Debt Requirements

The Application of Regulatory Resolution Strategies Could Increase the Risk of Loss for Holders of Our Debt Securities in the Event of the Resolution of The Goldman Sachs Group, Inc.

Your ability to recover the full amount that would otherwise be payable on our debt securities in a proceeding under the U.S. Bankruptcy Code may be impaired by the exercise by the FDIC of its powers under the "orderly liquidation authority" under Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"). In addition, the single point of entry strategy described below is intended to impose losses at the top-tier holding company level in the resolution of a global systemically important bank ("G-SIB") such as The Goldman Sachs Group, Inc.

Title II of the Dodd-Frank Act created a resolution regime known as the "orderly liquidation authority" to which financial companies, including bank holding companies such as The Goldman Sachs Group, Inc., can be subjected. Under the orderly liquidation authority, the FDIC may be appointed as receiver for a financial company for purposes of liquidating the entity if, upon the recommendation of applicable regulators, the Secretary of the Treasury determines, among other things, that the entity is in severe financial distress, that the entity's failure would have serious adverse effects on the U.S. financial system and that resolution under the orderly liquidation authority would avoid or mitigate those effects. Absent such determinations, The Goldman Sachs Group, Inc., as a U.S. bank holding company, would remain subject to the U.S. Bankruptcy Code.

If the FDIC is appointed as receiver under the orderly liquidation authority, then the orderly liquidation authority, rather than the U.S. Bankruptcy Code, would determine the powers of the receiver and the rights and obligations of creditors and other parties who have transacted with The Goldman Sachs Group, Inc. There are substantial differences between the rights available to creditors in the orderly liquidation authority and in the U.S. Bankruptcy Code, including the right of the FDIC under the orderly liquidation authority to disregard the strict priority of creditor claims in some circumstances (which would otherwise be respected by a bankruptcy court) and the use of an administrative claims procedure to determine creditors' claims (as opposed to the judicial procedure utilized in bankruptcy proceedings). In certain circumstances under the orderly liquidation authority, the FDIC could elevate the priority of claims that it determines necessary to facilitate a smooth and orderly liquidation without the need to obtain creditors' consent or prior court review. In addition, the FDIC has the right to transfer claims to a third party or "bridge" entity under the orderly liquidation authority. The FDIC has announced that a single point of entry strategy may be a desirable strategy to resolve a large financial institution such as The Goldman Sachs Group, Inc. in a manner that would, among other things, impose losses on shareholders, debt holders (including, in our case, holders of our debt securities) and other creditors of the top-tier holding company (in our case, The Goldman Sachs Group, Inc.), while permitting the holding company's subsidiaries to continue to operate. In addition, the Board of Governors of the Federal Reserve System (the "Federal Reserve Board") has adopted requirements that U.S. G-SIBs, including The Goldman Sachs Group, Inc., maintain minimum amounts of long-term debt and total loss-absorbing capacity to facilitate the application of the single point of entry resolution strategy. It is possible that the application of the single point of entry strategy under the orderly liquidation authority—in which The Goldman Sachs Group, Inc. would be the only entity to enter resolution proceedings—would result in greater losses to holders of our debt securities (including holders of our fixed rate, floating rate and indexed debt securities), than the losses that would result from the application of a bankruptcy proceeding or a different resolution strategy, such as a multiple point of entry resolution strategy for The Goldman Sachs Group, Inc. and certain of its material subsidiaries. Assuming The Goldman Sachs Group, Inc. entered resolution proceedings and that support from The Goldman Sachs Group, Inc. or other available resources to its subsidiaries was sufficient to enable the subsidiaries to remain solvent, losses at the subsidiary level would be transferred to The Goldman Sachs Group, Inc. and ultimately borne by The Goldman Sachs Group, Inc.'s security holders, third-party creditors of The Goldman Sachs Group, Inc.'s subsidiaries would receive full recoveries on their claims, and The Goldman Sachs Group, Inc.'s security holders (including holders of our debt securities and other

unsecured creditors) could face significant and possibly complete losses. In that case, The Goldman Sachs Group, Inc.'s security holders would face losses while the third-party creditors of The Goldman Sachs Group, Inc.'s subsidiaries would incur no losses because the subsidiaries would continue to operate and would not enter resolution or bankruptcy proceedings. In addition, holders of our eligible LTD (as defined below under "—The Notes Will Provide Only Limited Acceleration and Enforcement Rights") and other debt securities could face losses ahead of our other similarly situated creditors in a resolution under the orderly liquidation authority if the FDIC exercised its right, described above, to disregard the priority of creditor claims.

The orderly liquidation authority also provides the FDIC with authority to cause creditors and shareholders of a financial company such as The Goldman Sachs Group, Inc. in receivership to bear losses before taxpayers are exposed to such losses, and amounts owed to the U.S. government would generally receive a statutory payment priority over the claims of private creditors, including senior creditors. In addition, under the orderly liquidation authority, claims of creditors (including holders of our debt securities) could be satisfied through the issuance of equity or other securities in a bridge entity to which The Goldman Sachs Group, Inc.'s assets are transferred. If such a securities-for-claims exchange were implemented, there can be no assurance that the value of the securities of the bridge entity would be sufficient to repay or satisfy all or any part of the creditor claims for which the securities were exchanged. While the FDIC has issued regulations to implement the orderly liquidation authority, not all aspects of how the FDIC might exercise this authority are known and additional rulemaking is possible. In addition, certain jurisdictions, including the U.K. and the E.U., have implemented, or are considering, changes to resolution regimes to provide resolution authorities with the ability to recapitalize a failing entity by writing down its unsecured debt or converting its unsecured debt into equity. Such "bail-in" powers are intended to enable the recapitalization of a failing institution by allocating losses to its shareholders and unsecured debtholders. For example, the Bank of England requires a certain amount of intercompany funding that we provide to our material U.K. subsidiaries to contain a contractual trigger to expressly permit the Bank of England to exercise such "bail-in" powers in certain circumstances. If the intercompany funding we provide to our subsidiaries is "bailed in," The Goldman Sachs Group, Inc.'s claims on its subsidiaries would be subordinated to the claims of the subsidiaries' third party creditors or written down. U.S. regulators are considering and non-U.S. authorities have adopted requirements that certain subsidiaries of large financial institutions maintain minimum amounts of total loss absorbing capacity that would pass losses up from the subsidiaries to the top-tier BHC and, ultimately, to security holders of the top-tier holding company in the event of failure.

The Application of The Goldman Sachs Group, Inc.'s Proposed Resolution Strategy Could Result in Greater Losses for Holders of Our Debt Securities

As required by the Dodd-Frank Act and regulations issued by the Federal Reserve Board and the FDIC, we are required to provide to the Federal Reserve Board and the FDIC a plan for our rapid and orderly resolution in the event of material financial distress affecting the firm or the failure of The Goldman Sachs Group, Inc. In our resolution plan, The Goldman Sachs Group, Inc. would be resolved under the U.S. Bankruptcy Code. The strategy described in The Goldman Sachs Group, Inc.'s resolution plan is a variant of the single point of entry strategy: The Goldman Sachs Group, Inc. and Goldman Sachs Funding LLC ("Funding IHC"), a wholly-owned, direct subsidiary of The Goldman Sachs Group, Inc., would recapitalize and provide liquidity to certain major subsidiaries, including through the forgiveness of intercompany indebtedness, the extension of the maturities of intercompany indebtedness and the extension of additional intercompany loans. If this strategy were successful, creditors of some or all of The Goldman Sachs Group, Inc.'s major subsidiaries would receive full recoveries on their claims, while holders of The Goldman Sachs Group, Inc.'s debt securities could face significant and possibly complete losses.

To facilitate the execution of our resolution plan, we formed Funding IHC. In exchange for an unsecured subordinated funding note and equity interest, The Goldman Sachs Group, Inc. transferred certain intercompany receivables and substantially all of its global core liquid assets ("GCLA") to Funding IHC, and agreed to transfer additional GCLA above prescribed thresholds.

We also put in place a Capital and Liquidity Support Agreement ("CLSA") among The Goldman Sachs Group, Inc., Funding IHC and our major subsidiaries. Under the CLSA, Funding IHC has provided

The Goldman Sachs Group, Inc. with a committed line of credit that allows The Goldman Sachs Group, Inc. to draw sufficient funds to meet its cash needs during the ordinary course of business. In addition, if our financial resources deteriorate so severely that resolution may be imminent, (i) the committed line of credit will automatically terminate and the unsecured subordinated funding note will automatically be forgiven, (ii) all intercompany receivables owed by the major subsidiaries to The Goldman Sachs Group, Inc. will be transferred to Funding IHC or their maturities will be extended to five years, (iii) The Goldman Sachs Group, Inc. will be obligated to transfer substantially all of its remaining intercompany receivables and GCLA (other than an amount to fund anticipated bankruptcy expenses) to Funding IHC, and (iv) Funding IHC will be obligated to provide capital and liquidity support to the major subsidiaries. The Goldman Sachs Group, Inc.'s and Funding IHC's obligations under the CLSA are secured pursuant to a related security agreement. Such actions would materially and adversely affect The Goldman Sachs Group, Inc.'s liquidity. As a result, during a period of severe stress, The Goldman Sachs Group, Inc. might commence bankruptcy proceedings at an earlier time than it otherwise would if the CLSA and related security agreement had not been implemented.

If our proposed resolution strategy were successful, holders of The Goldman Sachs Group, Inc.'s debt securities could face losses while the third-party creditors of The Goldman Sachs Group, Inc.'s major subsidiaries would incur no losses because those subsidiaries would continue to operate and not enter resolution or bankruptcy proceedings. As part of the strategy, The Goldman Sachs Group, Inc. could also seek to elevate the priority of its guarantee obligations relating to its major subsidiaries' derivatives contracts or transfer them to another entity so that cross-default and early termination rights would be stayed under the International Swaps and Derivatives Association Universal Resolution Stay Protocol or International Swaps and Derivatives Association 2018 U.S. Resolution Stay Protocol, as applicable, which would result in holders of our eligible LTD and other debt securities incurring losses ahead of the beneficiaries of those guarantee obligations. It is also possible that holders of our eligible LTD and other debt securities could incur losses ahead of other similarly situated creditors of our major subsidiaries. If The Goldman Sachs Group, Inc.'s preferred resolution strategy were not successful, The Goldman Sachs Group, Inc.'s financial condition would be adversely impacted and holders of our debt securities may as a consequence be in a worse position than if the strategy had not been implemented. In all cases, any payments to holders of our debt securities are dependent on our ability to make such payments and are therefore subject to our credit risk.

The Notes Will Provide Only Limited Acceleration and Enforcement Rights

On December 15, 2016, the Federal Reserve Board adopted rules (the "TLAC Rules") that require the eight U.S. G-SIBs, including The Goldman Sachs Group, Inc., among other things, to maintain minimum amounts of long-term debt—i.e., debt having a maturity greater than one year from issuance—satisfying certain eligibility criteria ("eligible LTD"). The TLAC Rules disqualify from eligible LTD, among other instruments, senior debt securities issued on or after December 31, 2016 that permit acceleration for reasons other than insolvency or payment default. As a result of the TLAC Rules, unless your final terms say otherwise, the only events of default will be payment defaults that continue for a 30-day grace period and insolvency events as specified herein. Any other default under or breach of the notes will not give rise to an event of default, whether after notice, the passage of time or otherwise. As a consequence, if any such other default or breach occurs, holders of the notes will not be entitled to accelerate the maturity of any notes – that is, they will not be entitled to declare the principal of any notes to be immediately due and payable because of such other default or breach (other than any notes whose terms specify otherwise, as described in the applicable final terms). These other defaults and breaches would include any breach of the covenant described below under "Description of the Program — Mergers and Similar Transactions".

The limitations on events of default, acceleration rights and other remedies described in the prior paragraph do not apply with regard to all senior debt securities issued by The Goldman Sachs Group, Inc., particularly certain securities issued prior to January 1, 2017. Therefore, if certain defaults or breaches occur, holders of such other debt securities may be able to accelerate their securities so that such securities become immediately due and payable while you may not be able to do so. In such an event, our obligation to repay the accelerated securities in full could adversely affect our ability to make timely payments on your notes thereafter. These limitations on your rights and remedies could adversely affect the market value of your securities, especially during times of financial stress for us or our industry.

Please see “Description of the Program — Events of Default and Remedies” below for an explanation of the term “event of default” and for information regarding acceleration rights and remedies.

CONSENT TO USE THIS BASE PROSPECTUS

If so specified in the final terms in respect of any particular issuance of notes, the Issuer consents to the use of this Base Prospectus in connection with the making of an offer of the notes to the public requiring the prior publication of a prospectus under the Prospectus Regulation (a "Non-exempt Offer") (i) by the financial intermediary/ies (each, an "Authorized Offeror"), (ii) during the offer period and (iii) subject to the relevant conditions, in each case as specified in the relevant final terms.

The consent shall be valid in relation to the Grand Duchy of Luxembourg and such of Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain and Sweden as is specified in the relevant final terms and each other Member State the competent authority of which has been provided with a Certificate of Approval by the Competent Authority in relation to this Base Prospectus under Article 25 of the Prospectus Regulation, provided that it shall be a condition of such consent that the Base Prospectus may only be used by the relevant Authorized Offeror(s) to make offerings of the relevant notes in the jurisdiction(s) in which the Non-exempt Offer is to take place, as specified in the applicable final terms, and provided further that consent may be extended in relation to another EEA Member State(s) if the competent authority of such EEA Member State(s) is provided with a Certificate of Approval by the Competent Authority, in which case the Issuer will prepare and make available a supplement to this Base Prospectus to that effect.

The Issuer may (i) give consent to one or more additional Authorized Offerors after the date of the relevant final terms, (ii) discontinue or change the offer period, and/or (iii) remove or add conditions and, if it does so, such information in relation to the relevant notes will be published by way of notice which will be available on the Luxembourg Stock Exchange website (www.luxse.com). The consent relates only to offer periods occurring within twelve months from the approval date of this Base Prospectus.

Any Authorized Offeror who wishes to use this Base Prospectus in connection with a Non-exempt Offer is required, for the duration of the relevant offer period, to publish on its website that it is relying on this Base Prospectus for such Non-exempt Offer with the consent of the Issuer.

If the Issuer appoints additional financial intermediaries after the date of the applicable final terms for a Non-Exempt Offer and publishes details in relation to them on its website (**https://www.goldmansachs.com/**), each such financial intermediary whose details are so published is authorized to make such related offer under Directive 2014/65/EU.

The Issuer accepts responsibility for the content of this Base Prospectus in relation to any person (an "Investor") purchasing notes pursuant to a Non-exempt Offer where the offer to the Investor is made (i) by an Authorized Offeror (or the Issuer or Goldman Sachs International), (ii) in an EEA Member State for which the Issuer has given its consent, (iii) during the offer period for which the consent is given and (iv) in compliance with the other conditions attached to the giving of the consent, all as set forth in the relevant final terms. However, neither the Issuer nor Goldman Sachs International has any responsibility for any of the actions of any Authorized Offeror, including compliance by an Authorized Offeror with applicable conduct of business rules or other local regulatory requirements or other securities law requirements in relation to such offer.

Other than in accordance with the terms set out in the paragraph above, the Issuer has not authorized (and nor has Goldman Sachs International) the making of any Non-exempt Offers of the notes or the use of this Base Prospectus by any person. No financial intermediary or any other person is permitted to use this Base Prospectus in connection with any offer of the notes in any other circumstances. Any such offers are not made on behalf of the Issuer (or Goldman Sachs International) and neither the Issuer nor Goldman Sachs International has any responsibility or liability to any Investor purchasing notes pursuant to such offer or for the actions of any person making such offer.

If an Investor intends to purchase notes from an Authorized Offeror, it will do so, and such offer and sale will be made, in accordance with any terms and other arrangements in place between such Authorized Offeror and the Investor, including as to price, allocations and settlement arrangements. The Issuer will not be a party to any such arrangements and, accordingly, this Base

Prospectus does not contain such information. The terms and conditions of such offer should be provided to the Investor by that Authorized Offeror at the time such offer is made. Neither the Issuer nor Goldman Sachs International has any responsibility or liability for such information.

DOCUMENTS INCORPORATED BY REFERENCE

The Goldman Sachs Group, Inc. files documents and information with the United States Securities and Exchange Commission, which we refer to as the “SEC”. The following documents, of which items 1 to 3 The Goldman Sachs Group, Inc. has filed with the SEC, are hereby incorporated by reference into this Base Prospectus:

(1) the Annual Report on Form 10-K for the fiscal year ended December 31, 2022, dated February 23, 2023 (the "2022 Form 10-K"), including Exhibit 21.1 thereto ("Exhibit 21.1"), which we filed with the SEC on February 24, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/10k/2022/2022-10-k.pdf);

(2) the Proxy Statement relating to our 2023 Annual Meeting of Shareholders on April 26, 2023 (the “2023 Proxy Statement”), which we filed with the SEC on March 17, 2023 (accessible on https://www.goldmansachs.com/investor-relations/financials/proxy-statements/2023/2023-proxy-statement-pdf.pdf);

(3) the terms and conditions of the Notes contained on pages 32-100 of the base prospectus dated June 11, 2010 (accessible on http://dl.bourse.lu/dlp/10f4681aaa29e64f828ebd3827ecd8e714);

(4) the terms and conditions of the Notes contained on pages 33-102 of the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/10ec6a75dd9efe4adc961b3ff8c6cc67b9);

(5) the first bullet on page 2 of the prospectus supplement dated October 19, 2011 to the base prospectus dated June 10, 2011, amending the original terms and conditions of the Notes in the base prospectus dated June 10, 2011 (accessible on http://dl.bourse.lu/dlp/104703a2d86aba4fbdb7e56bb10fbd9717);

(6) the terms and conditions of the Notes contained on pages 31-92 of the base prospectus dated June 8, 2012 (accessible on http://dl.bourse.lu/dlp/10549f5c957be54b8abae2ec6d7fc005da);

(7) the terms and conditions of the Notes contained on pages 29-77 of the base prospectus dated June 10, 2013 (accessible on http://dl.bourse.lu/dlp/10a174f9d8442743c78ee03d66c0cfd721);

(8) the terms and conditions of the Notes contained on pages 47-105 of the base prospectus dated June 5, 2014 (accessible on http://dl.bourse.lu/dlp/10e4a7e8a8da014655932178f07c54755a);

(9) the terms and conditions of the Notes contained on pages 52-115 of the base prospectus dated June 5, 2015 (accessible on http://dl.bourse.lu/dlp/10b9d7952751534de9aa7387fbdafd160c);

(10) the terms and conditions of the Notes contained on pages 56-118 of the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/10db53f85d5231431a966473515e50c7b3);

(11) the bullets on pages S-4 to S-6 of the prospectus supplement dated January 13, 2017 to the base prospectus dated April 21, 2016, amending the original terms and conditions of the Notes in the base prospectus dated April 21, 2016 (accessible on http://dl.bourse.lu/dlp/105e44ac0b58ef4cc58c67826b6cfbe334);

(12) the terms and conditions of the Notes contained on pages 57-121 of the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/10fbec74b64dad48bf8c85b7e9e12c8283);

(13) the first bullet on page S-5 of the prospectus supplement dated November 3, 2017 to the base prospectus dated April 20, 2017, amending the original terms and conditions of the Notes in the base prospectus dated April 20, 2017 (accessible on http://dl.bourse.lu/dlp/107bb175ea44914bc1ba9231d2a89fddfc);

(14) the terms and conditions of the Notes contained on pages 60-124 of the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10edb4b5b0a23f4cf7bdf04428d77ccebb);

(15) the second bullet beginning on page S-1 of the prospectus supplement dated June 22, 2018 to the base prospectus dated April 19, 2018, amending the original terms and conditions of the Notes in the base prospectus dated April 19, 2018 (accessible on http://dl.bourse.lu/dlp/10be851315b2b5436cb070e63b472302bd);

(16) the terms and conditions of the Notes contained on pages 63-117 of the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/10f9c96cb91ebc49caad1dd7e180329d56);

(17) the bullets on page S-4 to S-9 of the prospectus supplement dated July 18, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1047c653713a614907959f9729108907aa);

(18) the bullets on page S-3 to S-5 of the prospectus supplement dated August 6, 2019 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/1049540c6fdb9b4a3b8e339908c1f91a28);

(19) the bullets on page S-1 to S-3 of the prospectus supplement dated January 15, 2020 to the base prospectus dated April 16, 2019, amending the original terms and conditions of the Notes in the base prospectus dated April 16, 2019 (accessible on http://dl.bourse.lu/dlp/109da67257297e4282b6710668e9aff305);

(20) the terms and conditions of the Notes contained on pages 43 - 106 of the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/1044fb499d1f9e4fff91d428b0115744b4);

(21) the bullets on page S-2 of the prospectus supplement dated May 4, 2020, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2020 (accessible on http://dl.bourse.lu/dlp/107a65f5e7ecd241f9b932fdb9a0d5afb5);

(22) the terms and conditions of the Notes contained on pages 46 – 109, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/1022ce26106ef04d45ad26951e83632606);

(23) the bullets on page S-4 to S-8 of the prospectus supplement dated May 5, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10442512fd4f214ad29c5ff57cc16b22a5);

(24) the bullets on page S-1 of the prospectus supplement dated August 4, 2021, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2021 (accessible on http://dl.bourse.lu/dlp/10825342e257d941fbba3708b7723906c6);

(25) the terms and conditions of the Notes contained on pages 46 – 116, and the form of final terms contained on pages S-1 to S-19 of the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/10de8c4a2e24c9491497e5387607f9598c); and

(26) the first and third bullets on page S-2 of the prospectus supplement dated May 4, 2022, amending the original terms and conditions of the Notes in the base prospectus dated April 15, 2022 (accessible on https://dl.bourse.lu/dlp/1086701a0229e44d508279ec6d424a4840).

Final Terms No. F-974 (ISIN: XS2567550921), issued under the base prospectus dated April 15, 2022 (as supplemented), relate to an ongoing public offer in Italy which will expire on August 3, 2023. These final terms are available for viewing at www.goldmansachs.it.

Final Terms No. F-979 (ISIN: XS2567557850), issued under the base prospectus dated April 15, 2022 (as supplemented), relate to an ongoing public offer in Germany and Austria which will expire on April 27, 2023. These final terms are available for viewing at https://classic.gs.de/de/XS2567557850.

The Goldman Sachs Group, Inc. will provide without charge to each person to whom this Base Prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been incorporated by reference into this Base Prospectus. Unless otherwise indicated, any exhibits to such documents are not incorporated by reference into, and do not form part of, this Base Prospectus. The Goldman Sachs Group, Inc. has determined that any such exhibits not incorporated by reference into this Base Prospectus are either not relevant for the investor or covered elsewhere in this Base Prospectus. In addition, the Goldman Sachs Group, Inc. has determined that any parts of prior base prospectuses specified in items 3 to 26 above that have been not specifically referenced above are not incorporated by reference into this Base Prospectus as such sections are either not relevant for the investor or covered elsewhere in this Base Prospectus. You can request those documents from Investor Relations, 200 West Street, New York, NY 10282, telephone +1 (212) 902-0300. In addition, such documents will be available free of charge from the Luxembourg listing agent, Banque Internationale à Luxembourg, société anonyme, from its principal office in Luxembourg. Our filings with the SEC are also available through the SEC's website at http://www.sec.gov. In addition, the Base Prospectus and any SEC filings incorporated by reference into this Base Prospectus will be filed with the Commission de Surveillance du Secteur Financier, and the Luxembourg Stock Exchange will publish all documents referred to above which have been incorporated by reference into this Base Prospectus documents on its website at www.luxse.com.

The following table indicates where information required by the Prospectus Regulation Implementing Regulation to be disclosed in, and incorporated by reference into, the Base Prospectus can be found in the documents referred to above. The information incorporated by reference that is not included in the cross-reference list is either not relevant for investors or covered elsewhere in the Base Prospectus.

Information required by the Prospectus Regulation Implementing Regulation	**Document/Location**
Risk Factors	
Risk Factors (*Annex 6, Section 3.1 of the Prospectus Regulation Implementing Regulation*)	2022 Form 10-K (Market Risks (pp. 29-32), Liquidity Risks (pp. 32-34), Credit Risks (pp. 35-36), Operational Risks (pp. 36-40), Legal and Regulatory Risks (pp. 41-48), Competition Risks (pp. 48-50) and Market Developments and General Business Environment Risks (pp. 50-54))
Information about us	
History and development of our company *(Annex 6, Section 4.1.1 and 4.1.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 1)

Details of any recent events particular to us and which are to a material extent relevant to an evaluation of our solvency	2022 Form 10-K (pp. 57-118)
Information on the material changes in the issuer's borrowing or funding structure since the last financial year *(Annex 6, Section 4.1.7)*	2022 Form 10-K (pp. 80-83, 123-126, 180-182)
Description of the expected financing of the issuer's activities *(Annex 6, Section 4.1.8)*	2022 Form 10-K (pp. 80-83)
Business overview	
Our principal activities *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 1-5,127)
Our principal markets *(Annex 6, Section 5.1.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 9-10, 56, 209)
Organizational Structure	
Organizational structure *(Annex 6, Section 6 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (p. 34, Exhibit 21.1)
Trend Information	
Trend information *(Annex 6, Section 7 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118)
Administrative, Management, and Supervisory Bodies	
Administrative, management and supervisory bodies, including conflicts of interest *(Annex 6, Section 9 of the Prospectus Regulation Implementing Regulation)*	2023 Proxy Statement (pp. 6-30, 97-99) 2022 Form 10-K (pp. 24-25)
Major Shareholders	
Beneficial owners of more than five per cent. (Annex 6, Section 10.1 of the Prospectus Regulation Implementing Regulation).....	2023 Proxy Statement (p. 102)
Financial information	
Audited historical financial information for the fiscal years ended December 31, 2022 and December 31, 2021 *(Annex 6, Section 11.1-11.5 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 57-118, 119-231, 123-231)
Audit report *(Annex 6, Section 11.1.1 of the Prospectus Regulation Implementing Regulation)*....	2022 Form 10-K (pp. 120-122)
Balance sheet *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*....	2022 Form 10-K (p. 124)
Income statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*....	2022 Form 10-K (p. 123)
Cash flow statement *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*....	2022 Form 10-K (p. 126)
Accounting policies and explanatory notes *(Annex 6, Section 11.1.5 of the Prospectus Regulation Implementing Regulation)*.....	2022 Form 10-K (pp. 59-62, 127-231)
Legal and arbitration proceedings (*Annex 6*, *Section 11.4 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 55, 210-223)

Additional Information

Share capital *(Annex 6, Section 12.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 125, 192-194)

Material Contracts

Material Contracts *(Annex 6, Section 13.1 of the Prospectus Regulation Implementing Regulation)*	2022 Form 10-K (pp. 180-183)

INTRODUCTION

The Goldman Sachs Group, Inc. is a leading global financial institution that provides a broad range of financial services across investment banking, asset and wealth management, equity and debt investments, private banking, lending, consumer platforms and transaction banking to a large and diversified client base that includes corporations, financial institutions, governments and individuals. Founded in 1869, we are one of the oldest and largest investment banking firms. Our headquarters are located at 200 West Street, New York, NY 10282, telephone +1 (212) 902-1000. We also maintain offices in all major financial centers around the world.

The Goldman Sachs Group, Inc. has entered into an agreement with Goldman Sachs International, an affiliate of The Goldman Sachs Group, Inc., under which Goldman Sachs International will, and other dealers may, act as agents for the placement, or purchase for resale, of notes issued by The Goldman Sachs Group, Inc.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the notes to provide additional funds for our operations and for other general corporate purposes, unless otherwise specified in the applicable final terms. In particular, if so specified in the applicable final terms, we may intend to allocate an amount equal to the net proceeds from the notes to finance or refinance projects and assets made or held by any Group member that respond to critical environmental, social and/or sustainability issues, as further specified in the applicable final terms. We will receive the net proceeds only from sales of the notes made in connection with their original issuance. We do not expect to receive any proceeds from resales of the notes by Goldman Sachs International or any of our other affiliates in market-making transactions. We expect our affiliates to retain the proceeds of their market-making resales and not to pay the proceeds to us.

CREDIT RATINGS

The following table sets forth our unsecured corporate credit ratings as of the date of this Base Prospectus[1]:

	Short-Term Debt	Long-Term Debt	Subordinated Debt	Preferred Stock
Dominion Bond Rating Service Limited[1)]	R-1 (middle)[6)]	A (high)[7)]	A[7)]	BBB (high)[8)]
Fitch, Inc.[2)]	F1[9)]	A[10)]	BBB+[10)]	BBB-[11)]
Moody's Investors Service[3)]	P-1[12)]	A-2[13)]	Baa2[14)]	Ba1[15)]
Standard & Poor's[4)]	A-2[16)]	BBB+[17)]	BBB[17)]	BB+[18)]
Rating and Investment Information, Inc.[5)]	a-1[19)]	A[20)]	A-[20)]	—

1) All Long-Term Debt, Subordinated Debt and Preferred Stock rating categories other than AAA and D also contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the rating is in the middle of the category. The Short-Term Debt rating categories R-1 and R-2 are further denoted by the subcategories "(high)", "(middle)", and "(low)".
2) The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories. Such suffixes are not added to the "AAA" Long-Term Rating category, or categories below "B".
3) Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.
4) Ratings from "AA" to "CCC" may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.
5) A plus (+) or minus (-) sign may be appended to the categories from AA to CCC to indicate relative standing within each rating category. The plus and minus signs are part of the rating symbols.
6) Superior credit quality. The capacity for the payment of short-term financial obligations as they fall due is very high. Differs from R-1 (high) by a relatively modest degree. Unlikely to be significantly vulnerable to future events.
7) Good credit quality. The capacity for the payment of financial obligations is substantial, but of lesser credit quality than AA. May be vulnerable to future events, but qualifying negative factors are considered manageable.
8) Adequate credit quality. The capacity for the payment of financial obligations is considered acceptable. May be vulnerable to future events.
9) Highest short-term credit quality. Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added "+" to denote any exceptionally strong credit feature.
10) High credit quality. "A" ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.
11) Speculative. "BB" ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.
12) Issuers (or supporting institutions) rated Prime-2 have a strong ability to repay short-term debt obligations.
13) Obligations rated A are judged to be upper-medium grade and are subject to low credit risk.
14) Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.
15) Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.
16) A short-term obligation rated "A-2" is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitment on the obligation is satisfactory.
17) An obligation rated "BBB" exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.
18) Obligations rated "BB", "B", "CCC", "CC", and "C" are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and "C" the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions. An obligation rated "BB" is less vulnerable to non-payment than other speculative issues. However, it faces major on-going uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation.
19) Certainty of the fulfillment of a short-term obligation is high.
20) High creditworthiness supported by a few excellent factors.

[1] Note to Draft: To be confirmed prior to filing.

A rating is not a recommendation to buy, sell or hold any of our securities. Any or all of these ratings are subject to revision or withdrawal at any time by the assigning rating organization. Each rating should be evaluated independently of any other rating.

GENERAL NOTE CONDITIONS

Information About Our Series F Euro Medium-Term Notes Program

General Description of the Program

When we refer to "notes" in this Base Prospectus, unless otherwise indicated, we mean the Series F euro medium-term notes. The notes may be issued pursuant to this Base Prospectus and the relevant final terms prepared in connection with a particular issuance of notes. The notes will not be secured by any property or assets. The notes will not be subordinated to any of our other debt obligations. We may offer and sell these notes to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis.

The Notes Will Be Senior

We may issue Series F euro medium-term notes. None of the Series F euro medium-term notes will be secured by any property or assets of The Goldman Sachs Group, Inc. or its subsidiaries. Thus, by owning a note, you are one of our unsecured creditors.

The Series F euro medium-term notes will constitute part of our senior debt and will rank equally with all of our other unsecured and unsubordinated debt.

The Notes Will Be Issued Under a Fiscal Agency Agreement

The notes will be issued pursuant to a document called a fiscal agency agreement. The fiscal agency agreement is a contract between The Goldman Sachs Group, Inc. and The Bank of New York Mellon, which acts as fiscal agent. The fiscal agent performs certain administrative duties for us. The fiscal agent does not act as an indenture trustee on your behalf.

We May Issue Other Series of Debt Securities

The fiscal agency agreement permits us to issue different series of notes from time to time. The Series F euro medium-term notes is a single, distinct series of notes. We may, however, issue notes in such amounts, at such times and on such terms as we wish, provided that any tranche of notes issued under this Base Prospectus will accord with the terms and conditions set out in this Base Prospectus. The notes will differ from one another, and from other series, in their terms.

When we refer to the "notes" or "these notes", unless otherwise indicated, we mean the Series F euro medium-term notes. When we refer to a "series" of notes, we mean a series, such as the Series F euro medium-term notes, issued under one of our fiscal agency agreements. When we refer to an "issue" or an "issuance" of notes, we mean an issue of notes having the same terms and conditions, including any reopenings of that issuance, and bearing as applicable the same Common Code or ISIN (or similar type of identifier).

Amounts That We May Issue

The fiscal agency agreement does not limit the aggregate amount of notes that we may issue nor does it limit the number of series or the aggregate amount of any particular series we may issue. Also, if we issue notes having the same terms in a particular offering, we may "reopen" that offering at any later time and offer additional notes having the same stated maturity date, interest payment dates, if any, and other terms, except for the date of issuance and issue price. See "— Form, Exchange, Registration and Transfer — Extensions for Further Issuances" below.

The fiscal agency agreement and the notes do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the notes or the fiscal agency agreement.

Use of This Base Prospectus in Market-Making Transactions

Our affiliates may use this Base Prospectus to resell notes in market-making transactions from time to time, including both notes that we have issued before the date of this Base Prospectus and notes that we have not yet issued. See "Plan of Distribution" below. In this Base Prospectus, the term "this offering" means the initial offering of the notes made in connection with their original issuance. This term does not refer to any subsequent resales of notes in market-making transactions.

We Are a Holding Company

Because our assets consist primarily of interests in the subsidiaries through which we conduct our businesses, our right to participate as an equity holder in any distribution of assets of any of our subsidiaries upon the subsidiary's liquidation or otherwise, and thus the ability of our note holders to benefit from the distribution, is junior to creditors of the subsidiary, except to the extent that any claims we may have as a creditor of the subsidiary are recognized. Many of our subsidiaries, including our broker-dealer, bank and insurance subsidiaries, are subject to laws that restrict dividend payments or authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to us. Restrictions or regulatory action of that kind could impede access to funds that we need to make payments on our obligations, including debt obligations. Because some of our subsidiaries, including from time to time some of our principal operating subsidiaries, are partnerships in which we are a general partner or the sole limited partner, we may be liable for their obligations. We also guarantee many of the obligations of our subsidiaries. Any liability we may have for our subsidiaries' obligations could reduce our assets that are available to satisfy our direct creditors, including investors in our notes.

Governing Law

The fiscal agency agreement and the notes will be governed by New York law.

This Section Is Only a Summarized Discussion of the Fiscal Agency Agreement and of Certain Terms of Your Note

The fiscal agency agreement, as applicable, and related documents, including your note, contain the full legal text of the matters described in this section and your final terms. A copy of the fiscal agency agreement is available for inspection at the corporate trust office of the fiscal agent in the Borough of Manhattan, New York City and at the office of the paying agent listed at the end of this Base Prospectus.

Investors should carefully read the description of the terms and provisions of the notes and the fiscal agency agreement below. This section and your final terms summarize all the material terms of the fiscal agency agreement and your note. They do not, however, describe every aspect of the fiscal agency agreement and your note. For example, in this section entitled "General Note Conditions" and your final terms, we use terms that have been given special meaning in the fiscal agency agreement, but we describe the meaning of only the more important of those terms.

As you read this section, please remember that each tranche of notes will be the subject of final terms which complete the general terms described in this section and elsewhere in this Base Prospectus. The terms and conditions applicable to any particular tranche of notes are the general terms in this Base Prospectus that apply to your notes, as completed by the relevant final terms.

When we refer to your final terms, we mean the final terms describing the specific terms of the note you purchase. The terms we use in any final terms that we also use in this document will have the meaning we give them in this document.

Features Common to All Notes

Form of Notes

We will issue each note in registered form. If the applicable final terms state that the notes are to be issued under NSS and that they are intended to be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations, then the notes will be registered in the name of a nominee for a common safekeeper for Euroclear and Clearstream, Luxembourg and we will deliver these notes to a common safekeeper for Euroclear and Clearstream, Luxembourg. Delivering the notes to a common safekeeper does not necessarily mean that the notes will be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations by the Eurosystem either upon issue or at any time or all times during their life.

Global notes in registered form which are not issued under NSS will be deposited with, and registered in the name of a nominee of, a common depositary for Euroclear and Clearstream, Luxembourg or other clearing system as specified in the applicable final terms.

For a further discussion of global notes in registered form, see "— Form, Exchange, Registration and Transfer" below.

The address of Euroclear is 1 Boulevard du Roi Albert II, B-1210 Brussels, Belgium and the address of Clearstream, Luxembourg is 42 Avenue JF Kennedy, L-1855 Luxembourg. The address of any alternative clearing system will be specified in the applicable final terms.

Principal Amount, Stated Maturity and Maturity

Unless otherwise stated, the principal amount of a note means the principal amount payable at its stated maturity, unless such amount is not determinable, in which case the principal amount of a note is its face amount. Any notes owned by us or any of our affiliates are not deemed to be outstanding.

The term "stated maturity" with respect to any note means the day on which the principal amount of that note is scheduled to become due. The principal may become due sooner, by reason of redemption or acceleration after a default or otherwise in accordance with the terms of the note or later, due to the automatic extension of the stated maturity or the extension of the stated maturity at our election or the election of the holder, in each case, in accordance with the terms of the note. The day on which the principal actually becomes due, whether at the stated maturity or otherwise, is called the "maturity" of the principal.

In connection with any tranche of notes, the price and amount of notes to be offered under the program will be determined by us and the relevant dealer at the time of offer in accordance with prevailing market conditions.

Currency of Notes

Each note will be denominated in a currency, composite currency or basket of currencies or currency unit or units that will be specified on the face of the note and in the applicable final terms. We refer to this currency, composite currency, basket of currencies or currency unit or units as a "specified currency". Some notes may have different specified currencies for principal and interest. You will have to pay for your note by delivering the requisite amount of the specified currency for the principal to Goldman Sachs International or another firm that we name in your final terms, unless other arrangements have been made between you and us or you and that firm. We will make payments on the notes in the applicable specified currency; for a further discussion of payment see "— Payment Mechanics for Notes" below. Unless otherwise specified in the applicable final terms, Goldman Sachs International will be the exchange rate agent for any note denominated in a currency that is not the U.S. dollar.

See "Risk Factors — Risk Factors Associated with Foreign Exchange Rates" above for more information about the risks of investing in notes denominated in a currency different from your own principal currency.

Types of Notes

We may issue the following three types of notes:

- ***Fixed Rate Notes.*** A note of this type will bear interest at a fixed rate described in the applicable final terms. This type includes notes which bear no interest (which we refer to as "zero coupon notes") and may be instead issued at a price significantly lower than the principal amount (which we refer to as "original issue discount notes" or "discount notes") and / or pay a multiple of the face amount at maturity. See "— Interest Rates — Fixed Rate Notes" below.

- ***Floating Rate Notes.*** A note of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. The various interest rate formulas and these other features are described below under "— Interest Rates — Floating Rate Notes". If your note is a floating rate note, the formula and any adjustments that apply to the interest rate will be specified in your final terms.

- ***Indexed Notes*****.** A note of this type provides that either or both of the principal amount payable at its stated maturity and/or the amounts payable during the life of the note will be determined at least in part by reference to, directly or indirectly, one or more underlyers, including:

  - interest rate formulas and currency exchange rates, the choices for which are identified below in "— Interest Rates — Indexed Notes";

  - one or more currencies;

  - one or more indices; and/or

  - one or more baskets of the items described above;

  as specified in the applicable final terms.

  An indexed note will be further categorized as having one or more of the following features: "range accrual", "steepener/flattener", "Asian absolute performance", "digital", "outperformance" and "participation".

A note may have elements of each of the three types of notes listed above. In particular, a note may bear interest at a fixed rate (or rates) in the initial interest period (or periods) and at a floating rate in subsequent interest periods, or may bear interest at a fixed or floating rate subject to indexed note provisions, in all cases subject to the terms and conditions contained in this Base Prospectus that are applicable to fixed rate notes, floating rate notes or indexed notes, as the case may be, as specified in your final terms. Similarly, a note may provide for a payment of principal at maturity linked to an underlyer and also bear interest at a fixed or floating rate.

If you are a holder of an indexed (participation) note, you may receive a principal amount at maturity that is up to 10% less than the outstanding face amount of your note, depending upon the formula used to determine the amount payable and the value of the applicable underlyer or underlyers at maturity. The value of the applicable underlyer or underlyers may fluctuate over time.

If you purchase an indexed note, your final terms will include information about the relevant underlyer or underlyers, about how any amounts that are to become payable will be determined by reference to the price or value of each underlyer, about any additional tax considerations. Unless the final terms otherwise specify, Goldman Sachs International will be the calculation agent that will calculate the amounts payable with respect to the indexed note and may exercise significant discretion in doing so. You should carefully read "Risk Factors — Considerations Relating to Indexed Notes" above.

If we redeem the notes upon a change in law as described below under "— Redemption and Repayment—Redemption Upon Change in Law" or following certain changes in the laws or regulations of any U.S. taxing authority as described below under "— Redemption and Repayment—Redemption Upon Obligation to Pay Additional Amounts", we may cancel such notes and, if permitted by applicable law, pay the purchaser of such notes an amount equal to the Non-Scheduled Early Repayment Amount. Additionally, we will also pay the Non-Scheduled Early Repayment Amount if an event of default occurs and the maturity of the note is accelerated. In any situation described in this paragraph, the Non-Scheduled Early Repayment Amount may be less than the outstanding face amount of your note. We describe the Non-Scheduled Early Repayment Amount in greater detail below under "Redemption and Repayment—Non-Scheduled Early Repayment Amount".

Original Issue Discount Notes, Including Zero Coupon Notes

If "Original Issue Discount" is specified in your final terms as being applicable, the notes are original issue discount notes. A note of this type is issued at a price lower than the amount payable at maturity and may provide that, upon redemption or acceleration of its maturity, an amount less than the amount payable at maturity will be payable. An original issue discount note may be a zero coupon note.

Sinking Fund

The notes will not be entitled to the benefit of any sinking fund — that is, we will not deposit money on a regular basis into a separate custodial account to repay your notes.

Information in the Final Terms

Your final terms will describe the specific terms of your note, which will include some or all of the following terms of your note:

- the tranche number;
- the specified currency or currencies for principal and interest;
- the authorized denomination;
- the issue price at which we originally issue your note, expressed as a percentage of the aggregate principal amount;
- the original issue date;
- the stated maturity, which will not be more than 40 years from the original issue date and, if applicable, any provisions for the extension of the stated maturity date;
- whether your note is a fixed rate note, a floating rate note, an indexed note or whether it combines elements of multiple types of notes as described above;
- whether your notes are represented by a global note or a master global note;
- if your note is a fixed rate note, the annual rate at which your note will bear interest for the relevant periods and the interest payment dates, if different from those stated under "— Interest Rates — Fixed Rate Notes" below;
- if your note is a floating rate note, the interest rate basis for the relevant periods, which may be one of the base rates described under "— Interest Rates — Floating Rate Notes" below; any applicable underlyer (base rate) currency or maturity, spread or spread multiplier or initial base rate, maximum rate or minimum rate; and the interest reset, determination, calculation and payment dates, all of which we describe under "— Interest Rates — Floating Rate Notes" below; the day count convention used to calculate interest payments for any period; the business day convention; and the calculation agent;

- if your note is an indexed note, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on the relevant interest payment date or dates and the formula(e) we will use to calculate these amounts, in addition to certain other information relating to the indexed note;

- whether your note is an original issue discount note and, if so, the yield to maturity;

- if applicable, the dates and prices at which your note may be redeemed at our option or repaid at the holder's option before the stated maturity, including any redemption or repayment commencement date, redemption or repayment date(s), redemption or repayment price(s) and redemption or repayment period(s), all of which we describe under "— Redemption and Repayment" below; and

- whether application will be made to the Luxembourg Stock Exchange for your note to be listed on the Official List of the Luxembourg Stock Exchange and admitted to trading on the Regulated Market of the Luxembourg Stock Exchange, and whether the notes will be listed on any other stock exchange.

Notes Offered During Subscription Period

The final terms will also specify if an offering of securities is open for subscription for a specified period of time and, if so, will specify the following:

- if applicable, the process for notification to applicants of the amount allotted and an indication whether dealing in the notes being offered may begin before such notification is made;

- any conditions to which the offer is subject;

- the total amount of the offer and how the amount of notes offered may be increased;

- if applicable, the time period during which the offer will be open and a description of the subscription process;

- if applicable, a description of the possibility to reduce subscriptions and the manner for refunding excess amounts paid by subscribers;

- if applicable, details of the minimum and/or maximum subscription amount;

- if applicable, the method and time limits for paying up the notes being offered;

- if applicable, our ability to extend, postpone, revoke and/or terminate an offer period;

- if applicable, a full description of the manner and date in which results of the offer are to be made public; or

- if applicable, the issue price at which we originally issue your note and the offer price, as determined by the Issuer in light of, among other considerations, prevailing market conditions, such as current interest rates.

Market-Making Transactions

If you purchase your note in a market-making transaction, you will receive information about the issue price, trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which Goldman Sachs International or another of our affiliates resells a note it has previously acquired from another holder. A market-making transaction in a particular note occurs after the original issuance and sale of the note.

Business Days

The following definitions of "business day" shall apply to the notes:

In relation to any Notes held or to be held in Euroclear and/or Clearstream, Luxembourg, "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday on which Euroclear and/or Clearstream, Luxembourg (as the case may be) is open for business;

In relation to any sum payable in New Zealand dollars ("NZD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Auckland, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in renminbi ("RMB"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Beijing, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in euros ("EUR"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET) System, or any successor system, is open for business;

In relation to any sum payable in Hong Kong dollars ("HKD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Hong Kong, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Great Britain pounds ("GBP"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in London, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Mexican pesos ("MXN"), "Business Day" means each day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in Mexico City, and in each Additional Business Centre (if any, as may be specified in the applicable final terms);

In relation to any sum payable in Indian rupee ("INR"), "Business Day" means each day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in Mumbai, India, and in each Additional Business Centre (if any, as may be specified in the applicable final terms);

In relation to any sum payable in US dollars ("USD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Norwegian Kroner ("NOK"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Oslo, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in South Korean won ("KRW"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Seoul, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Singapore dollars ("SGD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Singapore,

and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Australian dollars ("AUD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Sydney, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Taiwan dollars ("TWD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Taipei, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Swiss Franc ("CHF"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Zurich, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close;

In relation to any sum payable in Japanese yen ("JPY"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Tokyo, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close; and

In relation to any sum payable in Canadian dollars ("CAD"), "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in Toronto, and in each Additional Business Centre (if any, as may be specified in the applicable final terms), generally are authorized or obligated by law, regulation or executive order to close.

Notwithstanding the foregoing, in each case, if the relevant final terms specify "Non-Default Business Day" to be "Applicable", "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in each Additional Business Centre (as specified in the applicable final terms) generally are authorized or obligated by law, regulation or executive order to close, provided that if the Additional Business Centre is specified in the relevant final terms to be or to include (i) "TARGET", then "Business Day" shall mean a day which is also a TARGET Business Day, (ii) "U.S. Government Securities", then "Business Day" shall mean a day which is also a U.S. Government Securities Business Day".

Where the applicable final terms specify "Non-Default Business Day" to be applicable and more than one Additional Business Centre is listed, a day must satisfy all of the relevant conditions in order to be a business day for your notes.

"Additional Business Centre" means the place(s) specified as such in the applicable final terms.

"TARGET Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET) System, or any successor system, is open for business.

"U.S. Government Securities Business Day" means each day that is not a Saturday or Sunday or a day on which The Securities Industry and Financial Markets Association's U.S. holiday schedule recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

Business Day Conventions

As specified in the applicable final terms, the following business day conventions may apply to any note with regard to any relevant date other than one that falls on the stated maturity date or earlier redemption or repayment date:

If the "Business Day Convention" is specified in your final terms to be "Following" or "Following Adjusted" then, for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, if such date would otherwise fall on a day that is not a business day, such date will be postponed to the next day that is a business day.

If the "Business Day Convention" is specified in your final terms to be "Modified Following" or "Modified Following Adjusted" then, for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, if such date would otherwise fall on a day that is not a business day, such date will be postponed to the next day that is a business day; *provided* that, if the next business day falls in the next succeeding calendar month, then such date will be advanced to the immediately preceding business day.

If the "Business Day Convention" is specified in your final terms to be "Following Unadjusted" then, for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; *provided* that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed.

If the "Business Day Convention" is specified in your final terms to be "Modified Following Unadjusted" then, for any interest payment date, other than the stated maturity date or earlier redemption or repayment date, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; *provided* that, that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed; and *provided further* that if such day would fall in the next succeeding calendar month, the date of payment with respect to such interest payment date will be advanced to the business day immediately preceding such interest payment date.

In all cases, (1) if the stated maturity date or any earlier redemption or repayment date with respect to a note falls on a day that is not a business day, then any payment of principal, premium, if any, and interest otherwise due on such day will be made on the next succeeding business day, and (2) if the stated maturity date or any earlier redemption or repayment date with respect to a note falls on a day that is not a business day or is postponed for any other reason as specified in your final terms, then no interest on such payment shall accrue for the period from and after the originally scheduled stated maturity date, redemption date or repayment date, as the case may be. Notwithstanding the foregoing, if your final terms specify "Final BDC Procedure" to be "Applicable", then: (i) if the "Business Day Convention" is specified to be "Modified Following Adjusted" or "Modified Following Unadjusted" and if the stated maturity date or any earlier redemption or repayment date, as postponed in accordance with the first sentence of this paragraph, would fall in the next succeeding calendar month, the date of payment with respect to such stated maturity date or earlier redemption or repayment date will be advanced to the business day immediately preceding such date and (ii) if the "Business Day Convention" is specified to be "Modified Following Adjusted" or "Following Adjusted", then interest shall accrue to the stated maturity date or any earlier redemption or repayment date, as adjusted in accordance with the first sentence of this paragraph.

Calculation of Interest

Calculations relating to floating rate notes and indexed notes that bear interest will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution could include any affiliate of ours, such as Goldman Sachs International. The final terms for a particular note will name the institution that we have appointed to act as the calculation agent for that note as of its original issue date. Unless otherwise specified in the applicable final terms, we have initially appointed Goldman Sachs International as our calculation agent for all the floating rate and indexed notes. We may appoint a different

institution to serve as calculation agent from time to time after the original issue date of the notes without your consent and without notifying you of the change. We may also appoint different calculation agents for different notes. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent.

For each floating rate note, the calculation agent will determine, on the corresponding calculation or interest determination date, as described in "—Interest Rates—Floating Rate Notes" below, the interest rate that takes effect on each interest reset date. For each indexed note that bears interest, the calculation agent will determine, on the corresponding calculation or interest determination date the interest rate applicable to each interest period. In addition, the calculation agent will calculate the amount of interest that has accrued during each interest period — *i.e.*, the period from and including the original issue date, or the last date to which interest has been paid or made available for payment, to, but excluding, the payment date.

Day Count Conventions

For each interest period, the calculation agent will calculate the amount of accrued interest as the product of the face amount of the note multiplied by the applicable interest rate multiplied by an accrued interest factor for the interest period. This factor will be determined in accordance with the "Day Count Fraction" specified in the applicable final terms, including the following:

- If "1/1 (ISDA)" is specified, the factor will be equal to 1.
- If "Actual/Actual (ISDA)", or "Act/Act (ISDA)" is specified, the factor will be equal to the actual number of days in the interest period divided by 365 (or, if any portion of that interest period falls in a leap year, the sum of (1) the actual number of days in that portion of the interest period falling in a leap year divided by 366 and (2) the actual number of days in that portion of the interest period falling in a non-leap year divided by 365).
- If "Actual/Actual (ICMA)" is specified, the factor will be equal to the number of days in the interest period, including February 29 in a leap year, divided by the product of (1) the actual number of days in such interest period and (2) the number of interest periods in the calendar year.
- If "Actual/Actual (Bond)" is specified, the factor will be equal to the number of calendar days in the interest period, divided by the number of calendar days in the interest period multiplied by the number of interest periods in the calendar year.
- If "Actual/Actual (Euro)" is specified, the factor will be equal to the number of calendar days in the interest period divided by 365 or, if the interest period includes February 29, 366.
- If "Actual/365 (Fixed)", "Act/365 (Fixed)", "A/365 (Fixed)" or "A365F" is specified, the factor will be equal to the actual number of days in the interest period divided by 365.
- If "Actual/360 (ISDA)", "Act/360 (ISDA)" or "A/360 (ISDA)" is specified, the factor will be equal to the actual number of days in the interest period divided by 360.
- If "Actual/360 (ICMA)" is specified, the factor will be equal to the number of calendar days in the period, including February 29 in a leap year, divided by 360 days.
- If "30/360 (ISDA)", "360/360 (ISDA)" or "Bond Basis (ISDA)" or "30/360" is specified, the factor will be equal to the number of days in the interest period in respect of which payment is being made divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y(2) - Y(1))] + [30 \times (M(2) - M(1))] + (D(2) - D(1))}{360}$$

where:

"Y(1)" is the year, expressed as a number, in which the first day of the interest period falls;

"Y(2)" is the year, expressed as a number, in which the day immediately following the last day included in the interest period falls;

"M(1)" is the calendar month, expressed as a number, in which the first day of the interest period falls;

"M(2)" is the calendar month, expressed as a number, in which the day immediately following the last day included in the interest period falls;

"D(1)" is the first calendar day, expressed as a number, of the interest period, unless such number would be 31, in which case D(1) will be 30; and

"D(2)" is the calendar day, expressed as a number, immediately following the last day included in the interest period, unless such number would be 31 and D(1) is greater than 29, in which case D(2) will be 30.

- If "30E/360", "30E/360 (ISDA)" or "Eurobond Basis" is specified, the factor will be equal to the number of days in the interest period in respect of which payment is being made divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y(2) - Y(1))] + [30 \times (M(2) - M(1))] + (D(2) - D(1))}{360}$$

where:

"Y(1)" is the year, expressed as a number, in which the first day of the interest period falls;

"Y(2)" is the year, expressed as a number, in which the day immediately following the last day included in the interest period falls;

"M(1)" is the calendar month, expressed as a number, in which the first day of the interest period falls;

"M(2)" is the calendar month, expressed as a number, in which the day immediately following the last day included in the interest period falls;

"D(1)" is the first calendar day, expressed as a number, of the interest period, unless (i) such number would be 31, or (ii), if "30E/360 (ISDA)" is specified, that day is the last day of February; in which case D(1) will be 30; and

"D(2)" is the calendar day, expressed as a number, immediately following the last day included in the interest period, unless (i) such number would be 31, or (ii), if "30E/360 (ISDA)" is specified, that day is the last day of February; in which case D(2) will be 30.

Unless otherwise specified in the applicable final terms, EURIBOR notes will be subject to the Actual/360 (ISDA) day count convention, and CMS rate notes will be subject to the Actual/Actual (ISDA) day count convention.

Upon the request of the holder of any floating rate note, the calculation agent will provide the interest rate then in effect, and, if determined, the interest rate that will become effective on the next interest reset date with respect to such floating rate note. The calculation agent's determination of any interest rate will be conclusive for all purposes and binding in the absence of manifest error.

All percentages resulting from any calculations relating to a note will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point (*e.g.*, 9.876541% (or .09876541) being rounded down to 9.87654% (or .0987654) and 9.876545% (or .09876545) being rounded up to 9.87655% (or .0987655)); provided, however, that all percentages resulting from the calculation of base rates for Overnight Rate Notes (as defined in "—Interest Rates—Floating Rate Notes—Overnight Rate Notes") will be rounded as set forth under "—Interest Rates—Floating Rate Notes—Overnight Rate Notes—Calculation Method: Compounded Daily (Non-Index Determination)", "—Calculation Method: Compounded Daily (Index Determination)" or "—Calculation Method: Weighted Average", as applicable. All amounts used in or resulting from any calculations will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars and euros, to the nearest Japanese yen (with fractions equal to less than one-half JPY being rounded downward and fractions equal to or greater than one-half JPY being rounded upward) in the case of Japanese yen, or to the nearest corresponding hundredth of a unit, in the case of any other currency, with one-half of a corresponding hundredth of a unit or more being rounded upward. In determining the interest payments on your note, if your final terms specify the "Calculation Basis" to be "Per Denomination", then interest payments will be calculated on a per denomination basis and if your final terms specify the "Calculation Basis" to be "Notional", then interest payments will be calculated on the basis of the outstanding face amount of your notes.

In determining the base rate that applies to a floating rate note during a particular interest period, the calculation agent may obtain rate quotes from various banks or dealers active in the relevant market, as described in the following subsections. Those reference banks and dealers may include the calculation agent itself and its affiliates, as well as any agent participating in the distribution of the relevant floating rate notes and its affiliates, and they may include affiliates of The Goldman Sachs Group, Inc.

With respect to any floating rate note listed on the Official List of the Luxembourg Stock Exchange, the calculation agent communicates the interest rate for each interest period, together with the amount of interest which will accrue in respect of the note's minimum denomination during such interest period, the interest payment date on which such interest will be payable, the interest period and the number of days in the interest period, to The Goldman Sachs Group, Inc., Clearstream, Luxembourg, Euroclear, any paying agent and the Luxembourg Stock Exchange no later than noon, Luxembourg time, on the first day of such interest period. The published amount of interest to accrue and the interest payment date may subsequently be modified without notice in the event that the interest period is shortened or lengthened pursuant to the terms of the note.

Role of Calculation Agent and Exchange Rate Agent

All determinations made by the calculation agent and exchange rate agent will be in their sole discretion unless we state otherwise. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on the holder and on us, without any liability on the part of the calculation agent or exchange rate agent, respectively. Calculations relating to floating rate notes and indexed notes and adjustments with respect to any currencies, underlyers or underlyer components, as the case may be, will be made by the calculation agent.

We shall take such action as shall be necessary to ensure that there is at all relevant times a financial institution serving as the calculation agent and exchange rate agent, if applicable, under the notes. We may, in our sole discretion at any time and from time to time, upon written notice to the fiscal agent, but without notice to any holder, terminate the appointment of the calculation agent or exchange rate agent, if applicable, and appoint another agent (including any of our affiliates). Insofar as the notes provide for the calculation agent or exchange rate agent to obtain information from any institution or other source, the calculation agent or exchange rate agent may do so from any source or sources of the kind contemplated or otherwise permitted, notwithstanding that any one or more of such sources are an agent, affiliate of such agent or affiliate of ours. We assume no responsibility to verify the accuracy of such information.

Change in Law

Following the determination by the calculation agent that a change in law (as defined in the following paragraph) has occurred, the calculation agent will determine, acting in good faith and in a commercially

reasonable manner, the appropriate adjustment, if any, to be made to any one or more of the terms of the notes, including, without limitation, any term relating to amounts payable on such notes, as the calculation agent determines appropriate to account for the effect of the change in law, and shall determine the effective date of such adjustments, provided that the calculation agent shall only make such adjustments in order to preserve as closely as commercially practicable the economic objective and rationale of the notes before such adjustments. We may also redeem, in whole but not in part, any outstanding issuance of notes in the event of a change in law, as described under "— Redemption and Repayment — Redemption Upon Change in Law" below.

A change in law means that, on or after the settlement date, as a result of (i) the adoption of, or any change in, any applicable law, rule, regulation, judgment, order, sanction, or directive of any governmental, administrative, legislative or judicial authority ("applicable law") or (ii) the promulgation of, or any change in, the formal or informal interpretation of any applicable law by a court, tribunal or regulatory authority with competent jurisdiction (including any action by a taxing authority), the calculation agent determines that (a) the performance by us and/or any of our affiliates under such notes, (b) the performance by us and/or any of our affiliates under any related hedge positions (whether with respect to the relevant underlyer to which such notes are linked or any constituent thereof) or (c) the performance by any of our affiliates under such notes had such affiliate been an issuer of the notes or under any related hedge positions (whether with respect to the relevant underlyer to which the notes are linked or any constituent thereof) had such affiliate been a party to any such hedging arrangement, (x) in the case of (a) will, or there is a substantial likelihood in the immediate future that it will, result in a materially increased (including, without limitation, due to any increase in tax liability, decrease in tax benefit, or other adverse effect on its tax position) cost to us or our affiliates in performing our obligations under the notes, or (y) in the case of (a), (b) or (c) has, or there is a substantial likelihood in the immediate future that it will, become unlawful or impractical in whole or in part.

"Hedge positions" means any one or more securities positions, derivatives positions or other instruments or arrangements (howsoever described) purchased, sold, entered into or maintained by the us or any of our affiliates, in order to hedge, or otherwise in connection with, the notes, including, for the avoidance of doubt, any such positions in respect of the assets that may be required to be delivered in connection with any physical settlement of the notes, as specified in the relevant final terms.

Interest Rates

This subsection describes the different kinds of interest rates that may apply to your note, if it bears interest. A note which bears interest at one or more fixed rates for all interest periods is described as a "Fixed Rate Note". A note which bears interest at one or more floating rates for all interest periods is described as a "Floating Rate Note". A note which bears interest for some or all interest periods at one or more of the rates determined as described under "— Indexed Notes" below is described as an "Indexed Note" (although it may bear interest for certain interest periods at a fixed rate or a floating rate).

Fixed Rate Notes

A note of this type will bear interest at the fixed rate specified in your final terms for each interest period for which "Fixed Rate" is specified as Applicable. This type includes notes which bear no interest (which we refer to as "zero coupon notes") and / or may be instead issued at a price lower than the principal amount (which we refer to as "original issue discount notes" or "discount notes") and / or pay a multiple of the face amount at maturity. See "— Features Common to All Notes — Original Issue Discount Notes" above for more information about zero coupon and other original issue discount notes.

Each fixed rate note, except any zero coupon note or discount note, will bear interest from the "Interest Commencement Date" specified in your final terms or from the most recent interest payment date to which interest on the note has been paid or made available for payment. Interest will accrue on the principal of a fixed rate note at a fixed rate per annum, or at fixed rates per annum, stated in applicable final terms as the "Interest Rate", until the principal is paid or made available for payment. Your final terms will describe the interest rates applicable to each interest period if the interest rate changes over the term of the note (as described below), and relevant interest payment dates on which interest on fixed rate notes will be payable. The "interest period" for each payment of interest due on an interest payment date or at

maturity will include interest accrued from and including the last date to which interest has been paid or made available for payment, or from the interest commencement date if none has been paid or made available for payment, to, but excluding, the interest payment date, the date of maturity or the relevant early redemption date, in each case subject to the business day convention. We will compute interest on fixed rate notes on the basis of the day count convention specified in your final terms; see "— Day Count Conventions" above. We will pay interest on each interest payment date and at maturity as described under "— Payment Mechanics for Notes" below.

If "Original Issue Discount" is specified in your final terms as being applicable, the applicable final terms will specify the "OID", "Accretion Date" and "Accretion Rate". An original issue discount note may be a zero coupon note. For each denomination, the accreted value will be an amount equal to (1) as of any date prior to the originally scheduled stated maturity date, the product of (A) the denomination, *multiplied by* (b) the original issue price of your note, *multiplied by* (C) (x) the sum of (i) 100% *plus* (ii) the Accretion Rate (y) raised to the power of the applicable Day Count Fraction (i.e. Denomination x Original Issue Price x {(100% + Accretion Rate) ^ Day Count Fraction); and (2) as of any date on or after the originally scheduled stated maturity date, the denomination.

Floating Rate Notes

A note of this type will bear interest at rates that are determined by reference to one of the interest rate formulae described below for the interest periods for which "Floating Rate" is specified as Applicable in your final terms. In some cases, the rates may be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate, as described in greater detail below. If your note is a floating rate note, the formula and any adjustments that apply to the interest rate will be specified in your final terms.

Each floating rate note will bear interest from its original issue date or from the most recent interest payment date to which interest on the note has been paid or made available for payment. Unless your final terms indicate that "Compounding Interest" (described further below) is applicable, interest will accrue on the principal of a floating rate note at the annual rate determined according to the interest rate formula stated in the note and the applicable final terms, until the principal is paid or made available for payment. We will pay interest on each interest payment date and at maturity as described under "— Payment Mechanics for Notes" below.

Base Rates

We currently expect to issue floating rate notes that bear interest at rates based on one or more Term Rates (as defined below), Overnight Rates (as defined below) and/or CMS Reference Rates (as defined below). The final terms of a floating rate note will specify one of the foregoing categories of base rate as the "Base Rate Type" and will further specify the specific "Base Rate" that applies to your note. We describe each of these base rates in further detail below in this subsection.

General Floating Rate Terms and Conditions

Spread or Spread Multiplier

In some cases, the base rate for a floating rate note may be adjusted:

- by adding or subtracting a percentage or a specified number of basis points called the spread (with one basis point being 0.01%);
- by multiplying the base rate by a specified percentage, called the spread multiplier, which may be less than one hundred percent or may be negative; or
- by a combination of the foregoing.

If you purchase a floating rate note, your final terms will specify whether a "Spread" or "Spread Multiplier" will apply to your note and, if so, the amount of the spread or spread multiplier.

Maximum and Minimum Rates

The actual interest rate, after being adjusted by the spread or spread multiplier, may also be subject to either or both of the following limits:

- a maximum rate — *i.e.*, a specified upper limit that the actual interest rate in effect at any time may not exceed; and/or
- a minimum rate — *i.e.*, a specified lower limit that the actual interest rate in effect at any time may not fall below.

If you purchase a floating rate note, your final terms will specify whether a "Maximum Rate" and/or "Minimum Rate" will apply to your note and, if so, what those rates are.

In addition, if your final terms indicate that "Base Rate 0% Floor" is applicable, then, if the base rate is negative in respect of any interest period, the base rate will be deemed to equal 0.00% for such interest period.

Whether or not a maximum rate applies, the interest rate on a floating rate note will in no event be higher than the maximum rate permitted by New York law, as it may be modified by U.S. law of general application. Under current New York law, the maximum rate of interest, with some exceptions, for any loan in an amount less than $2,500,000 is 25% per year on a simple interest basis. No limits apply to loans of $2,500,000 or more.

Compounding Interest

If your final terms indicate that "Compounding Interest" is applicable, then for each interest period, the rate of interest applicable to your note will be equal to (x) (i) the *sum of* one *plus* the base rate, (ii) raised to the *power of* the *quotient* of (a) one *divided by* (b) the number of interest payment dates scheduled to occur in each year (y) *minus* one.

The rest of this subsection describes how the interest rate and the interest payment dates will be determined, and how interest will be calculated, on a floating rate note.

Interest Period

The interest period means the period from and including an interest payment date (or the interest commencement date, in the case of the initial interest period) to but excluding the next succeeding interest payment date (or the stated maturity date (or early redemption date, if applicable), in the case of the final interest period), in each case subject to the business day convention.

Interest Reset Dates

The date on which the interest rate on a floating rate note resets is called the interest reset date. Unless otherwise specified in the applicable final terms, the interest reset dates will be the first day of each applicable interest period.

Interest Determination Dates

The interest rate that takes effect on an interest reset date for an interest period will be determined by the calculation agent by reference to a particular date called an interest determination date. The interest determination dates applicable to each interest period will be specified as the "Interest Determination Dates" in the applicable final terms. If any interest determination date would otherwise be a day that is not a business day, the interest determination date will be adjusted in accordance with the applicable business day convention.

Interest Calculation Dates

As described above the interest rate that takes effect on a particular interest reset date will be determined by reference to the corresponding interest determination date, provided that except for EURIBOR notes, the determination of the rate will actually be made on a day no later than the corresponding interest calculation date. The interest calculation date will be the earlier of the following:

- the tenth calendar day after the interest determination date or, if that tenth calendar day is not a business day, the next succeeding business day;
- the business day immediately preceding the interest payment date or the maturity date, whichever is the day on which the next payment of interest will be due; or
- in the case of floating rate notes (other than notes based on an Overnight Rate) listed on the Official List of the Luxembourg Stock Exchange, the first date of the interest period beginning on or after the interest reset date.

The calculation agent need not wait until the relevant interest calculation date to determine the interest rate if the rate information it needs to make the determination is available from the relevant sources sooner.

Interest Payment Dates

The interest payment dates will be specified in the applicable final terms. If any interest payment date would otherwise be a day that is not a business day, the interest payment date will be adjusted in accordance with the applicable business day convention. If the applicable final terms specify that the interest payment dates will occur after a specified number of calendar days, the interest payment date will occur on the specified number of calendar days following the previous originally scheduled interest payment date (or the interest commencement date, with respect to the first interest payment date).

Term Rate Notes

If the applicable final terms of your floating rate note designates the "Base Rate Type" to be "Term Rates", your notes will bear interest at rates based on EURIBOR, MXN TIIE Banixico or another term rate as described under "—Screen Term Rate Determination" below (collectively the "Term Rates" and such notes, the "Term Rate Notes").

EURIBOR Notes

If you purchase a "EURIBOR" note ("Base Rate": EURIBOR), your note will bear interest at a base rate equal to the interest rate for deposits in euros designated as "EURIBOR" and currently administered by the European Money Markets Institute (or its successor) for purposes of compiling and publishing that rate. In addition, the EURIBOR base rate will be adjusted by the spread or spread multiplier, if any, specified in your final terms. EURIBOR will be determined in the following manner:

EURIBOR for the relevant interest reset date will be the offered rate for deposits in euros having the underlyer maturity specified in your final terms, as that rate appears on the Reuters screen EURIBOR01 page (or if specified in your final terms, the underlyer screen page) (or any successor or replacement service or page) as of approximately 11:00 A.M., Brussels time, on the relevant EURIBOR interest determination date.

If the rate described above does not so appear on the Reuters screen EURIBOR01 page (or if specified in your final terms, the underlyer screen page) (or any successor or replacement service or page), then subject to the terms described below under "Effect of Original Primary Rate Event on Certain Floating Rate Notes", the calculation agent, after consulting such sources as it deems comparable to the foregoing display page, or any such source it deems reasonable, shall determine EURIBOR for that interest reset date in its sole discretion.

MXN TIIE Banxico

If you purchase an "MXN TIIE Banxico" note ("Base Rate": MXN TIIE Banxico), your note will bear interest at a base rate equal to the MXN TIIE Banxico, adjusted by the spread or spread multiplier, if any, specified in your final terms.

MXN TIIE Banxico shall be the Tasa de Interés Interbancaria de Equilibrio (Interbank Equilibrium Interest Rate) ("TIIE") for Mexican Pesos having the underlyer maturity specified in the applicable final terms which is published in the "Diario Oficial de la Federación" (Official Gazette of the Federation) by 11.00 a.m., Mexico City time on the relevant interest determination date. The rate may be replicated as set forth under the heading "TIIE" for the underlyer maturity specified in the applicable final terms or its equivalent as published on the Banco de México's website, or on the Reuters Screen MEX06 Page (or any successor thereto) across from the caption "TIIE" for the applicable underlyer maturity or its equivalent, in either case as of 2.00 p.m., Mexico City time, on the day that is one Business Day preceding the relevant interest determination date. In the event of any discrepancy between the rate published in the Diario Oficial de la Federación and the rate published on the Banco de México's website, or on the Reuters Screen MEX06 Page (or any successor thereto) on the day that is one Business Day preceding the relevant interest determination date, the rate published in the Diario Oficial de la Federación will govern. For the avoidance of doubt, if the rate is not published in the Diario Oficial de la Federación, rates replicated on the Banco de México's website or on the Reuters Screen MEX06 Page (or any successor thereto) are not valid.

In the event that the MXN TIIE Banxico rate is not published in the Diario Oficial de la Federación on any interest determination date, the calculation agent, after consulting any source it deems reasonable, shall determine the MXN TIIE Banxico rate with respect to such interest determination date in its sole discretion.

Screen Term Rate Determination

If your final terms specify "Screen Term Rate Determination" to be "Applicable" your note will bear interest at a base rate equal to an applicable reference rate specified in your final terms and adjusted by the spread or spread multiplier, if any, specified in your final terms.

The calculation agent will determine the applicable reference rate which appears on the relevant screen page specified in your final terms (or any successor or replacement service or page) as of the relevant time specified in your final terms on the relevant interest determination date specified in your final terms.

Subject to the terms described below under "Effect of Original Primary Rate Event on Certain Floating Rate Notes", if such rate does not appear on at least one of the relevant screen pages at the relevant time on the relevant interest determination date, the calculation agent will: (a) request the principal financial center office of each of the reference banks to provide a quotation of the applicable reference rate at approximately the relevant time on the interest determination date to prime banks in the principal financial center interbank market in an amount that is representative for a single transaction in that market at that time; and (b) determine the arithmetic mean of such quotations, and the base rate with respect to such interest payment date shall be equal to such arithmetic mean.

If fewer than two such quotations are provided as requested, the calculation agent will determine the arithmetic mean of the rates (being the nearest to the applicable reference rate, as determined by the calculation agent) quoted by major banks in the principal financial center of the specified currency, selected by the calculation agent, at approximately 11:00 a.m. (local time in the principal financial center of the specified currency) (or such other relevant time) on the first day of the relevant interest period for loans in the specified currency to leading European banks for a period equal to the relevant interest period and in an amount that is representative for a single transaction in that market at that time, and the base rate with respect to such interest payment date shall be equal to such arithmetic mean.

If the calculation agent is unable to determine a rate or (as the case may be) an arithmetic mean in accordance with the above provisions in relation to any interest period, the base rate applicable to your

notes during such interest period shall be determined by the calculation agent in good faith and in a commercially reasonable manner having regard to comparable benchmarks then available.

For purposes of the foregoing provisions described in the subsection entitled "— Interest Rates — Floating Rate Notes — Screen Term Rate Determination":

The term "***Bloomberg Page***" means, in respect of an applicable reference rate and any designated page, the display page so designated on the Bloomberg® service (or such other page as may replace that page on that service (or replace such services) for the purpose of displaying a rate comparable to such applicable reference rate, as determined by the calculation agent);

The term "***principal financial center***" means the city specified as such in the relevant final terms;

The term "***relevant time***" means the time in the place specified as such in the relevant final terms;

The term "***relevant screen page***" or "***relevant screen pages***" means the Bloomberg Page or the Reuters Screen (or both) specified as the relevant screen page or the relevant screen pages in the relevant final terms. If, when we refer to any relevant screen page, we refer to a particular heading or headings on such page, those references include any successor or replacement heading or headings as determined by the calculation agent;

The term *"**Reuters Screen**"* means the display on the Reuters 3000 Xtra service or any successor or replacement service, on the page or pages specified in the applicable final terms, or any replacement page or pages on that service, as determined by the calculation agent; and

The term "***reference banks***" means four major banks selected by the calculation agent in the market that is most closely connected with the reference rate.

Overnight Rate Notes

General Terms of Overnight Rate Notes

If the applicable final terms of your floating rate note designates the "Base Rate Type" to be "Overnight Rates" then your note will bear interest based on a compounded overnight risk-free rate (each an "Overnight Rate" and collectively the "Overnight Rates", and such notes, the "Overnight Rate Notes"), adjusted by a spread or multiplier, if any, specified in your final terms. The applicable base rate of Overnight Rate Notes will be calculated in accordance with the calculation methodologies described below under "— Calculation Method: Compounded Daily (Non-Index Determination)", " — Calculation Method: Compounded Daily (Index Determination)" or "— Calculation Method: Weighted Average", as specified in the applicable final terms.

The Overnight Rates are defined as follows:

- **SOFR**: If the applicable final terms designates the "Base Rate" to be "Compounded SOFR", the applicable Overnight Rate with respect to any U.S. Government Securities Business Day will be:

  (1) the Secured Overnight Financing Rate published for such date as such rate appears on the Federal Reserve Bank of New York's Website at 3:00 p.m. (New York time) on the immediately following U.S. Government Securities Business Day; or

  (2) if the rate specified in (1) above does not so appear, the Secured Overnight Financing Rate as published in respect of the first preceding U.S. Government Securities Business Day for which the Secured Overnight Financing Rate was published on the Federal Reserve Bank of New York's Website.

  For the purposes of the foregoing, "***Federal Reserve Bank of New York's Website***" means http://www.newyorkfed.org, or any successor source.

- **SONIA:** If the applicable final terms designates the "Base Rate" to be "Compounded SONIA", the applicable Overnight Rate with respect to any London Banking Day will be:

  (1) the daily Sterling Overnight Index Average rate for such date as provided by the Bank of England, as the administrator of the SONIA rate (or a successor administrator) to authorized distributors and as then published on the Relevant Screen Page (or, if the Relevant Screen Page is unavailable, as otherwise published by such authorized distributors), in each case at 12:00 p.m. (London time) on the immediately following London Banking Day; or

  (2) if the rate specified in (1) above does not so appear:

  (a) the Bank of England's bank rate (the "Bank Rate") prevailing at 5:00 p.m. (London time) on such date *plus* the mean of the spread of the SONIA rate to the Bank Rate over the previous five London Banking Days on which a SONIA rate has been published, excluding the highest spread (or, if there is more than one highest spread, one only of those highest spreads) and the lowest spread (or, if there is more than one lowest spread, one only of those lowest spreads); or

  (b) if such Bank Rate is not available, the SONIA rate published on the Relevant Screen Page (or otherwise published by the relevant authorized distributors) for the first preceding London Banking Day on which the SONIA rate was published on the Relevant Screen Page (or otherwise published by the relevant authorized distributors).

- **€STR:** If the applicable final terms designates the "Base Rate" to be "Compounded €STR", the applicable Overnight Rate with respect to any TARGET Banking Day will be:

  (1) a reference rate equal to the daily euro short-term rate as provided by the European Central Bank, as administrator of such rate (or any successor administrator of such rate), on the ECB's Website, in each case on or before 9:00 a.m. (Central European Time) on the TARGET Banking Day immediately following such date;

  (2) if the rate specified in (1) above does not so appear, €STR for the first preceding TARGET Banking Day on which €STR was published on the Relevant Screen Page.

  For the purposes of the foregoing, "***ECB's Website***" means the website of the European Central Bank currently at http://www.ecb.europa.eu, or any successor website officially designated by the European Central Bank.

- **SARON**: If the applicable final terms designates the "Base Rate" to be "Compounded SARON", the applicable Overnight Rate with respect to any Zurich Banking Day will be:

  (1) the Swiss Average Rate Overnight for such Zurich Banking Day published by the SARON Administrator on the SIX Group's Website at the Specified Time on such Zurich Banking Day;

  (2) if such rate is not so published on the SIX Group's Website at the Specified Time on such Zurich Banking Day, the Swiss Average Rate Overnight published by the SARON Administrator on the SIX Group's Website for the last preceding Zurich Banking Day on which the Swiss Average Rate Overnight was published by the SARON Administrator on the SIX Group's Website

  For the purposes of the foregoing, **"*SARON Administrator*"** means SIX Index AG (including any successor thereto) or any successor administrator of the Swiss Average Rate Overnight; and "***Specified Time***" means, in respect of any Zurich Banking Day, close of trading on the trading platform of SIX Repo AG (or any successor thereto) on such Zurich Banking Day, which is expected to be on or around 6 p.m. (Zurich time).

- **TONA**: If the applicable final terms designates the "Base Rate" to be "Compounded TONA", the applicable Overnight Rate with respect to any Tokyo Banking Day will be:

(1) the daily Tokyo Overnight Average Rate as provided by the Bank of Japan, as the administrator of such rate (or any successor administrator of such rate), to authorized distributors and as then published on the Relevant Screen Page; or,

(2) if the Relevant Screen Page is unavailable, as otherwise published by the administrator of TONA or by such authorized distributors, in each case on or about 10.00 a.m. (Tokyo time) (or any amended publication time as specified by the administrator of such rate) on the Tokyo Banking Day immediately following such Tokyo Banking Day.

In all cases if the applicable Overnight Rate cannot be determined in accordance with the foregoing provisions, the applicable Overnight Rate shall be (i) that determined as at the last preceding interest determination date to which the foregoing provisions shall have applied or (ii) if there is no such preceding interest determination date, the Overnight Rate which would have been applicable to such Overnight Rate Note for the first interest period had the applicable notes been in issue for a period equal in duration to the scheduled first interest period but ending on (and excluding) the original issue date.

Definitions used in this section "—Interest Rates— Floating Rate Notes —Overnight Rate Notes":

"***Calculation Business Day***" means, unless otherwise specified in the applicable final terms, (i) where "Compounded SOFR" is specified as the "Base Rate" in the applicable final terms, a U.S. Government Securities Business Day; (ii) where "Compounded SONIA" is specified as the "Base Rate" in the applicable final terms, a London Banking Day; (iii) where "Compounded €STR" is specified as the "Base Rate" in the applicable final terms, a TARGET Banking Day; (iv) where "Compounded SARON" is specified as the "Base Rate" in the applicable final terms, a Zurich Banking Day; and (v) where "Compounded TONA" is specified as the "Base Rate" in the applicable final terms, a Tokyo Banking Day;

"***London Banking Day***" means any day on which commercial banks are open for general business (including dealing in foreign exchange and foreign currency deposits) in London;

"***TARGET Banking Day***" means any day on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in Brussels, Belgium.

"***Tokyo Banking Day***" means any day on which commercial banks are open for general business (including dealing in foreign exchange and foreign currency deposits) in Tokyo;

"***Relevant Screen Page***" has the meaning given to such term in the section entitled "Description of the Program—Interest Rates—Floating Rate Notes—Term Rate Notes—Screen Term Rate Determination";

"***U.S. Government Securities Business Day***" means any day except for a Saturday, Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities; and

"***Zurich Banking Day***" means any day on which commercial banks are open for general business (including dealing in foreign exchange and foreign currency deposits) in Zurich.

Calculation Method: Compounded Daily (Non-Index Determination)

If the applicable final terms specify the "Calculation Method" to be "Compounded Daily (Non-Index Determination)", then the applicable base rate will be determined by the calculation agent using the formula described below. The resulting percentage will be rounded, if necessary, to the fourth decimal place, with 0.00005% being rounded upwards to the nearest one ten-thousandth of a percentage point (in the case of Compounded SONIA, Compounded €STR or Compounded SARON) and to the fifth decimal place, with 0.000005% being rounded upwards to the nearest one hundred-thousandth of a percentage point (in the case of Compounded SOFR or Compounded TONA), or as otherwise specified beside "Compounded Overnight Rate Rounding" in the applicable final terms:

$$\left[\prod_{i=1}^{d_0}\left(1+\frac{r_i\ x\ n_i}{\text{Day Count Basis}}\right)-1\right]\ x\ \frac{\text{Day Count Basis}}{d}$$

where for purposes of applying the above formula to the terms of the applicable Overnight Rate Note:

"***Day Count Basis***" is the number specified in the applicable final terms or, if not specified in the applicable final terms, the denominator of the applicable day count fraction;

"***d***" means (where the applicable final terms specify the "Observation Method" to be "Lag" or "Lock-out") the number of calendar days in the relevant interest period, or (where the applicable final terms specify the "Observation Method" to be "Shift") the number of calendar days in the relevant Observation Period;

"***d_o***" means (where the applicable final terms specify the "Observation Method" to be "Lag" or "Lock-out") the number of Calculation Business Days in the relevant interest period, or (where the applicable final terms specify the "Observation Method" to be "Shift") the number of Calculation Business Days in the relevant Observation Period;

"***Lock-out Date***" is a date falling a specified number of Calculation Business Days prior to a relevant interest payment date (or, where no "Lock-out Date" is specified, five Calculation Business Days prior to the relevant interest payment date);

"***i***" means:

a) if the applicable final terms specify the "Observation Method" to be "Shift", a series of whole numbers from one to "d_0," each representing the relevant Calculation Business Day in chronological order from, and including, the first Calculation Business Day in the relevant Observation Period; and

b) if the applicable final terms specify the "Observation Method" to be "Lag" or "Lock-out", a series of whole numbers from one to "d_0," where i = 1 represents the first calendar day of the relevant interest period, and each of i = 2 to "d_0" represents the relevant Calculation Business Day in chronological order from, and including, the first Calculation Business Day in such interest period;

"***n_i***" means, for any day "i", the number of calendar days from, and including, such day up to, but excluding, the following Calculation Business Day;

"***Observation Period***" means, where the applicable final terms specify the "Observation Method" to be "Shift", in respect of an interest period, the period from, and including, the date which is "p" Calculation Business Days prior to the first day of the relevant interest period and ending on, but excluding, the date which is "p" Calculation Business Days prior to the interest payment date for such interest period (or the date falling "p" Calculation Business Days prior to such earlier date, if any, on which the applicable Overnight Rate Note becomes due and payable);

"***p***" means a number of Calculation Business Days equal to the Observation Look-back Period as specified in the applicable final terms (or, if no such number is specified, five Calculation Business Days); and

"***r_i***" means, in respect of any day "i":

a) where the applicable final terms specify the "Observation Method" to be "Lag", the applicable Overnight Rate in respect of the Calculation Business Day which precedes such day "i" by p Calculation Business Days, except that if i = 1 and day "i" is not a Calculation Business Day, then it is the applicable Overnight Rate in respect of the Calculation Business Day which precedes such day "i" by p + 1 Calculation Business Days.

b) where the applicable final terms specify the "Observation Method" to be "Shift", the applicable Overnight Rate in respect of such day; and

c) where the applicable final terms specify the "Observation Method" to be "Lock-out",

(x) if such day falls before the applicable "Lock-out Date" specified in the applicable final terms, the applicable Overnight Rate in respect of such day (or, if such day is not a Calculation Business Day, the applicable Overnight Rate in respect of the first Calculation Business Day immediately preceding such day) and

(y) if such day falls on or after the "Lock-out Date" specified in the applicable final terms, the applicable Overnight Rate in respect of the Lock-out Date.

Calculation Method: Compounded Daily (Index Determination)

If the applicable final terms specify the "Calculation Method" to be "Compounded Daily (Index Determination", then the applicable base rate will be determined by the calculation agent using the formula described below. The resulting percentage will be rounded, if necessary, to the fourth decimal place, with 0.00005% being rounded upwards to the nearest one ten-thousandth of a percentage point (in the case of Compounded SONIA, Compounded €STR or Compounded SARON) and to the fifth decimal place, with 0.000005% being rounded upwards to the nearest one hundred-thousandth of a percentage point (in the case of Compounded SOFR or Compounded TONA), or as otherwise specified beside "Compounded Overnight Rate Rounding" in the applicable final terms:

$$\left(\frac{Reference\ Rate\ Compounded\ Index_{End}}{Reference\ Rate\ Compounded\ Index_{Start}} - 1\right) x \frac{Day\ Count\ Basis}{d}$$

where for purposes of applying the above formula to the terms of the applicable Overnight Rate Note:

"***Day Count Basis***" is the number specified in the applicable final terms or, if not specified in the applicable final terms, the denominator of the applicable day count fraction;

"***d***" means the number of calendar days from (and including) the day in relation to which Reference Rate Compounded $Index_{Start}$ is determined to (but excluding) the day in relation to which Reference Rate Compounded $Index_{End}$ is determined;

"***Reference Rate Compounded Index$_{Start}$***" means, with respect to an interest period, the Reference Rate Compounded Index determined in relation to the day falling the Relevant Number of Calculation Business Days prior to the first day of such interest period;

"***Reference Rate Compounded Index$_{End}$***" means, with respect to an interest period, the Reference Rate Compounded Index determined in relation to the day falling the Relevant Number of Calculation Business Days prior to (A) the interest payment date for such interest period, or (B) such other date on which the relevant payment of interest falls due (but which by its definition or the operation of the relevant provisions is excluded from such interest period);

"***Reference Rate Compounded Index***" means, in respect of any Calculation Business Day, where the applicable final terms specify the "Calculation Method" to be "Compounded Daily (Index Determination)" and:

(i) Compounded SONIA is specified as the applicable "Base Rate", the SONIA compounded index as provided by the Bank of England, as the administrator of such rate (or any successor administrator of such rate), to authorized distributors and as then published on the Relevant Screen Page or, if the Relevant Screen Page is unavailable, as otherwise published by the administrator or such authorized distributors, in each case on such Calculation Business Day;

(ii) Compounded SOFR is specified as the applicable reference rate, the SOFR index value as published by the Federal Reserve Bank of New York ("New York Fed"), as the administrator of such rate

(or any successor administrator of such rate), on the New York Fed's Website at or around 3.00 p.m. (New York time) on such Calculation Business Day;

(iii) Compound €STR is specified as the applicable "Base Rate", the compounded €STR index as published by the European Central Bank, as administrator of such rate (or any successor administrator of such rate), on the ECB's Website on such Calculation Business Day;

(iv) Compounded SARON is specified as the applicable "Base Rate", the SARON index as provided by the SIX Index AG, as the administrator of such rate (or any successor administrator), to authorized distributors and as then published on the Relevant Screen Page or, if the Relevant Screen Page is unavailable, as otherwise published by the administrator or such authorized distributors, in each case on such Calculation Business Day; and

(v) Compounded TONA is specified as the applicable "Base Rate", the TONA index as provided by QUICK Corp., as the administrator of such rate (or any successor administrator), and published on the Relevant Screen Page, or if the Relevant Screen page is unavailable, as otherwise published by the administrator, in each case on such Calculation Business Day.

If the relevant Reference Rate Compounded Index is not published or displayed by the administrator of the applicable reference rate or other information service by i) in respect of SONIA, 5.00 p.m. (London time); ii) in respect of SOFR, 3.00 p.m. (New York time); iii) in respect of €STR, 5.00 p.m. (Central European time); iv) in respect of SARON, 6.00 p.m. (Zurich time); or v) in respect of TONA, 5.00 p.m. (Tokyo time) (or, in each case, if later, by the time falling one hour after the customary or scheduled time for publication thereof in accordance with the then-prevailing operational procedures of the administrator of the applicable reference rate or of such other information service, as the case may be) on the relevant interest determination date, the base rate for the applicable interest period for which the Reference Rate Compounded Index is not available shall be the base rate determined as set out under the section entitled "—Interest Rates — Floating Rate Notes — Overnight Rate Notes — Calculation Method: Compounded Daily (Non-Index Determination)" and as if "Compounded Daily (Non-Index Determination)" were specified in the applicable final terms as the "Calculation Method", and for these purposes: (i) the "Observation Method" shall be deemed to be "Shift" and (ii) the "Observation Look-Back Period" shall be deemed to be equal to the Relevant Number of Calculation Business Days, as if those alternative elections had been made in the applicable final terms; and

"***Relevant Number***" means the number specified as such in the applicable final terms (or, if no such number is specified, five).

Calculation Method: Weighted Average

If the applicable final terms specify the "Calculation Method" to be "Weighted Average", then the applicable base rate will be determined by the calculation agent using the formula described below. The resulting percentage will be rounded, if necessary, to the fourth decimal place, with 0.00005% being rounded upwards to the nearest one ten-thousandth of a percentage point (in the case of Compounded SONIA, Compounded €STR or Compounded SARON) and to the fifth decimal place, with 0.000005% being rounded upwards to the nearest one hundred-thousandth of a percentage point (in the case of Compounded SOFR or Compounded TONA), or as otherwise specified beside "Compounded Overnight Rate Rounding" in the applicable final terms:

$$\left[\sum_{i=1}^{d_o}\left(\frac{r_i \ x \ n_i}{\text{Day Count Basis}}\right)\right] x \ \frac{\text{Day Count Basis}}{d}$$

where for purposes of applying the above formula to the terms of the applicable Overnight Rate Note:

"***Day Count Basis***", "***d***", "d_o", "***i***", "***n***", "**p**" and "r_i" have the meanings given to such terms in the section entitled "—Interest Rates — Floating Rate Notes — Overnight Rate Notes — Calculation Method: Compounded Daily (Non-Index Determination)".

Effect of Benchmark Transition Event on SOFR Notes

The following provisions will apply to any floating rate note for which the applicable final terms specifies the "Base Rate" as "Compounded SOFR" (any such note, a "***SOFR Note***"). If the Base Rate of your note is Compounded SOFR (any such note, a "***SOFR Note***") and the calculation agent determines that a benchmark transition event and its related benchmark replacement date have occurred prior to the interest determination date in respect of any interest payment date, the benchmark replacement will replace the then-current benchmark for all purposes relating to such note in respect of such determination on such date and all determinations on all subsequent dates.

In connection with the implementation of a benchmark replacement, the calculation agent will have the right to make benchmark replacement conforming changes from time to time.

Any determination, decision or election that may be made by the calculation agent pursuant to the provisions described in this section entitled "—Interest Rates — Floating Rate Notes — Overnight Rate Notes — Effect of Benchmark Transition Event on SOFR Notes", including any determination with respect to a rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error, may be made in the calculation agent's sole discretion, and, notwithstanding anything to the contrary in the documentation relating to the SOFR notes, shall become effective without consent from any other party.

The calculation agent's determination of any benchmark, and its calculation of the amount of interest for any observation period or interest period, will be on file at our principal offices and will be made available to any security holder upon request.

As used in this section entitled "—Interest Rates— Floating Rate Notes — Overnight Rate Notes — Effect of Benchmark Transition Event on SOFR Notes":

The term "**benchmark**" means, initially, Compounded SOFR; provided that if a benchmark transition event and its related benchmark replacement date have occurred with respect to Compounded SOFR or the then-current benchmark, then "benchmark" means the applicable benchmark replacement.

The term "**benchmark replacement**" means the first alternative set forth in the order below that can be determined by the calculation agent as of the benchmark replacement date:

(1) the sum of: (a) the alternate rate of interest that has been selected or recommended by the relevant governmental body as the replacement for the then-current benchmark and (b) the benchmark replacement adjustment;

(2) the sum of: (a) the ISDA fallback rate and (b) the benchmark replacement adjustment;

(3) provided that if (i) the benchmark replacement cannot be determined in accordance with clause (1) or (2) above as of the benchmark replacement date or (ii) the calculation agent shall have determined that the ISDA fallback rate determined in accordance with clause (2) above is not an industry-accepted rate of interest as a replacement for the then-current benchmark for U.S. dollar-denominated floating rate debt securities at such time, then the benchmark replacement shall be the sum of: (a) the alternate rate of interest that has been selected by the calculation agent as the replacement for the then-current benchmark giving due consideration to any industry-accepted rate of interest as a replacement for the then-current benchmark for U.S. dollar-denominated floating rate debt securities at such time and (b) the benchmark replacement adjustment.

The term "**benchmark replacement adjustment**" means the first alternative set forth in the order below that can be determined by the calculation agent as of the benchmark replacement date:

(1) the spread adjustment (which may be a positive or negative value or zero), or method for calculating or determining such spread adjustment, that has been selected or recommended by the relevant governmental body for the applicable unadjusted benchmark replacement;

(2) if the applicable unadjusted benchmark replacement is equivalent to the ISDA fallback rate, then the ISDA fallback adjustment;

(3) the spread adjustment (which may be a positive or negative value or zero) that has been selected by the calculation agent giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current benchmark with the applicable unadjusted benchmark replacement for U.S. dollar-denominated floating rate debt securities at such time.

The term "**benchmark replacement conforming changes**" means, with respect to any benchmark replacement, any technical, administrative or operational changes (including changes to the definitions of "interest period", "interest determination date" and "observation period", timing and frequency of determining rates and making payments of interest, and other administrative matters) that the calculation agent decides may be appropriate to reflect the adoption of such benchmark replacement in a manner substantially consistent with market practice (or, if the calculation agent decides that adoption of any portion of such market practice is not administratively feasible or if the calculation agent determines that no market practice for use of the benchmark replacement exists, in such other manner as the calculation agent determines is reasonably necessary).

The term "**benchmark replacement date**" means the earliest to occur of the following events with respect to the then-current benchmark:

(1) in the case of clause (1) or (2) of the definition of "benchmark transition event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of the benchmark permanently or indefinitely ceases to provide the benchmark; or

(2) in the case of clause (3) of the definition of "benchmark transition event," the date of the public statement or publication of information referenced therein.

For the avoidance of doubt, if the event giving rise to the benchmark replacement date occurs on the same day as the interest determination date, but earlier than the reference time on that date, the benchmark replacement date will be deemed to have occurred prior to the reference time for such determination.

For the avoidance of doubt, for purposes of the definitions of benchmark replacement date and benchmark transition event in this section entitled "— Interest Rates — Floating Rate Notes — SOFR Notes", references to benchmark also include any reference rate underlying such benchmark.

The term "**benchmark transition event**" means the occurrence of one or more of the following events with respect to the then-current benchmark:

(1) a public statement or publication of information by or on behalf of the administrator of the benchmark announcing that such administrator has ceased or will cease to provide the benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the benchmark;

(2) a public statement or publication of information by the regulatory supervisor for the administrator of the benchmark, the central bank for the currency of the benchmark, an insolvency official with jurisdiction over the administrator for the benchmark, a resolution authority with jurisdiction over the administrator for the benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for the benchmark, which states that the administrator of the benchmark has ceased or will cease to provide the benchmark

permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the benchmark; or

(3) a public statement or publication of information by the regulatory supervisor for the administrator of the benchmark announcing that the benchmark is no longer representative.

The term "**Federal Reserve Bank of New York's Website**" means the website of the Federal Reserve Bank of New York at http://www.newyorkfed.org, or any successor source.

The term "**ISDA definitions**" means the 2021 ISDA definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time.

The term "**ISDA fallback adjustment**" means the spread adjustment (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the ISDA definitions to be determined upon the occurrence of an index cessation event with respect to the benchmark for the applicable tenor.

The term "**ISDA fallback rate**" means the rate that would apply for derivatives transactions referencing the ISDA definitions to be effective upon the occurrence of an index cessation date with respect to the benchmark for the applicable tenor excluding the applicable ISDA fallback adjustment.

The term "**reference time**" with respect to any determination of the benchmark means (1) if the benchmark is compounded SOFR, 3:00 p.m. (New York time) on the date of such determination, and (2) if the benchmark is not compounded SOFR, the time determined by the calculation agent in accordance with the benchmark replacement conforming changes.

The term "**relevant governmental body**" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

The term "**unadjusted benchmark replacement**" means the benchmark replacement excluding the benchmark replacement adjustment.

CMS Rate Notes

If the applicable final terms of your floating rate note designates the "Base Rate Type" to be "CMS Reference Rate", your note will bear interest at a base rate equal to the CMS Interest Rate (such notes, "CMS Rate Notes"), which will be determined by the calculation agent in accordance with the provisions below.

Single CMS Rate

If the applicable final terms specify the CMS Interest Rate to be "Single CMS Rate", the "CMS Interest Rate" in respect of an interest period or any relevant day will be equal to the CMS Reference Rate, adjusted by the spread or spread multiplier, if any, specified in such final terms.

Spread CMS Rate

If the applicable final terms specify the CMS Interest Rate to be "Spread CMS Rate", the CMS Interest Rate in respect of an interest period or any relevant day will be equal to the difference between (i) the CMS Reference Rate 1 for such interest period or such relevant day, adjusted by the spread or spread multiplier, if any, specified in such final terms, *minus* (2) the CMS Reference Rate 2 for such interest period or such relevant day, adjusted by the spread or spread multiplier, if any, specified in such final terms.

If the Relevant Swap Rate does not appear on the Relevant Screen Page at the Relevant Time on an interest determination date, then subject to the terms described below under "Effect of Original Primary Rate Event on Certain Floating Rate Notes", the CMS Reference Rate for that interest reset date shall be

determined by the calculation agent in accordance with the "Temporary Non-Publication Fallback" specified in the applicable final terms.

(a) If the applicable final terms specify "Temporary Non-Publication Fallback" to be "Reference Banks Quotation", the calculation agent shall request each of the Reference Banks to provide the calculation agent with its quotation for the Relevant Swap Rate (expressed as a percentage rate per annum) at approximately the Relevant Time on the interest determination date in question. If at least three quotations are provided, the relevant CMS Reference Rate for the relevant interest period or day shall be the arithmetic mean of the quotations, eliminating the highest quotation (or, in the event of equality, one of the highest) and the lowest quotation (or, in the event of equality, one of the lowest). If, on any interest determination date, only one or none of the Reference Banks provides the one with such quotations of the Relevant Swap Rate (used to determine the CMS Reference Rate), the relevant CMS Reference Rate shall be determined by the calculation agent, in its sole discretion, in accordance with standard market practice.

(b) If the applicable final terms specify "Temporary Non-Publication Fallback" to be "Calculation Agent Discretion", the relevant CMS Reference Rate for the relevant interest period or day shall be determined by the calculation agent in its discretion, acting in good faith and in a commercially reasonable manner, on the basis of the relevant internally marked mid-rate (derived from externally executable bid and ask prices) of the calculation agent at 11:00 a.m. of the Relevant Financial Centre as per the applicable Business Day Convention, on the applicable interest determination date, applying principles that are recognized in the financial services industry for determining the value of such rate.

As used in this section entitled "—Interest Rates — Floating Rate Notes — CMS Rate Notes":

"*CMS Reference Rate*" means, in respect of an interest period or any relevant day, the Relevant Swap Rate for swap transactions in the Reference Currency with a maturity of the Designated Maturity (expressed as a percentage rate per annum) which appears on the Relevant Screen Page as at the Relevant Time on the relevant interest determination date, as determined by the calculation agent;

"***CMS Reference Rate 1***" means, in respect of an interest period or any relevant day (as applicable), the CMS Reference Rate specified as such in the applicable final terms, and the "Relevant Swap Rate", "Reference Currency", "Designated Maturity", "Relevant Screen Page", "Relevant Time" and any other relevant term will each be specified in the applicable final terms under the heading "CMS Reference Rate 1";

"***CMS Reference Rate 2***" means the CMS Reference Rate specified as such in the applicable final terms, and the "Relevant Swap Rate", "Reference Currency", "Designated Maturity", "Relevant Screen Page", "Relevant Time" and any other relevant term will each be specified in the applicable final terms under the heading "CMS Reference Rate 2";

"***Designated Maturity***" means a period of time specified as such in the applicable final terms.

*"**Euro-zone**"* means, at any time, the region comprised of the Member States of the European Economic and Monetary Union, or any successor union that, as of that time, have adopted a single currency in accordance with the Treaty on European Union of February 1992, or any successor treaty;

"***Reference Banks***" means, (i) if the Reference Currency is: (a) Euro, the principal office of five leading swap dealers in the Euro-zone interbank market; (b) Pound Sterling, the principal London office of five leading swap dealers in the London interbank market, (c) U.S. Dollars, the principal New York City office of five leading swap dealers in the New York City interbank market, or (d) any other Reference Currency, the principal Relevant Financial Centre office of five leading swap dealers in the Relevant Financial Centre interbank market, in each case as selected by the calculation agent; or (ii) such leading swap dealers in the Relevant Financial Centre interbank market as specified in the applicable final terms;

"***Reference Currency***" means the currency specified as such in the applicable final terms corresponding to such CMS Reference Rate;

"***Relevant Financial Centre***" means, with respect to a Reference Currency, the financial centre specified as such in the applicable final terms;

"***Relevant Screen Page***" has the meaning given to such term in the section entitled "Description of the Program—Interest Rates—Floating Rate Notes—Term Rate Notes—Screen Term Rate Determination".

"***Relevant Swap Rate***" means:

(i) where the Reference Currency is Euro, the mid-market annual swap rate determined on the basis of the arithmetic mean of the bid and offered rates for the annual fixed leg, calculated on a 30/360 day count basis, of a fixed-for-floating euro interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant interest period or on any relevant day and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, in each case calculated on an Actual/360 day count basis, is equivalent to the annual swap rate for Euro swap transactions with a floating leg of EURIBOR with a designated maturity determined by the calculation agent by reference to standard market practice;

(ii) where the Reference Currency is Pound Sterling , the mid-market semi-annual swap rate determined on the basis of the arithmetic mean of the bid and offered rates for the semi-annual fixed leg, calculated on an Actual/365 (Fixed) day count basis, of a fixed-for-floating Sterling interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant interest period or on any relevant day and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, in each case calculated on an Actual/365 (Fixed) day count basis, is equivalent to the swap rate for a fixed-for-floating Sterling swap transaction with a floating leg of compounded SONIA with a designated maturity determined by the calculation agent by reference to standard market practice;

(iii) where the Reference Currency is U.S. Dollars, the mid-market semi-annual swap rate determined on the basis of the mean of the bid and offered rates for the semi-annual fixed leg, calculated on a 30/360 day count basis, of a fixed-for-floating United States dollar interest rate swap transaction with a term equal to the Designated Maturity commencing on the first day of the relevant interest period or on any relevant day and in a Representative Amount with an acknowledged dealer of good credit in the swap market, where the floating leg, calculated on an Actual/360 day count basis, is equivalent to the swap rate for a fixed-for-floating U.S. Dollar swap transaction with a floating leg of compounded SOFR with a designated maturity determined by the calculation agent by reference to standard market practice; and

(iv) where the Reference Currency is any other currency or if the applicable final terms specify otherwise, the mid-market swap rate as determined by the calculation agent in accordance with standard market practice;

"***Relevant Time***" means, for the purposes of a determination of a CMS Reference Rate, the time in the place specified as such in the applicable final terms corresponding to such CMS Reference Rate; and

"*Representative Amount*" means an amount that is representative for a single transaction in the relevant market at the relevant time.

Effect of Original Primary Rate Event on Certain Floating Rate Notes

The following provisions will apply to any floating rate note (other than SOFR Notes) for which the applicable final terms specify "Original Primary Rate Fallback" to be "Applicable". If the Original Primary Rate Fallback is applicable, then if the calculation agent determines that an original primary rate event and its related adjustment date have occurred in respect of an original primary rate prior to the reference time in respect of any determination of the original primary rate on any date, the replacement primary rate plus adjustment spread will replace the then-current original primary rate for all purposes relating to such note, in respect of such determination on such date and all determinations on all subsequent dates. In connection

with the implementation of the replacement primary rate, the calculation agent will have the right to make replacement primary rate amendments from time to time.

If the calculation agent determines, in its discretion and acting in good faith and in a commercially reasonable manner, that an original primary rate event has occurred in respect of an original primary rate which may adversely affect the interests of the holders (including but not limited to the fact that such original primary rate, as the case may be, is no longer relevant to and does not reflect the original economic objective and rationale of the notes):

(1) the calculation agent shall attempt to identify a replacement primary rate, as the case may be;

(2) the calculation agent shall attempt to determine the adjustment spread;

(3) if the calculation agent identifies a replacement primary rate pursuant to paragraph (1) above and determines an Adjustment Spread pursuant to paragraph (2) above, then:

(A) the terms of the notes shall, without the consent of the holders, be amended so that each reference to the original primary rate shall be replaced by a reference to "replacement primary rate plus the adjustment spread" (provided that the result of the replacement primary rate plus the adjustment spread plus or minus (as indicated in the relevant final terms) the margin, may not be less than zero) with effect from the adjustment date;

(B) the calculation agent shall, without the consent of the holders, make such other adjustments (the "replacement primary rate amendments") to the conditions (including, but not limited to, any business day, business day convention, day count fraction, interest determination date, interest amount, interest payment date, interest period and rate of interest) with effect from the adjustment date as it determines necessary or appropriate in order to account for the effect of the replacement of the original primary rate with the replacement primary rate plus the adjustment spread and/or to preserve as nearly as practicable the economic equivalence of the notes before and after the replacement of the original primary rate with the replacement primary rate plus the adjustment spread; and

(C) the calculation agent shall deliver a notice to the holders as soon as practicable in the manner described under "— Notices" which shall specify any replacement primary rate, adjustment spread, adjustment date and the specific terms of any replacement primary rate amendments and such notice shall be irrevocable. Any replacement primary rate, adjustment spread and replacement primary rate amendments will be binding on the Issuer, the registrar, the paying and transfer agent and the holders.

Neither the calculation agent nor the Issuer shall have any duty to monitor, enquire or satisfy itself as to whether any original primary rate event has occurred.

If the definition, methodology or formula for an original primary rate, or other means of calculating such original primary rate, is changed or modified (irrespective of the materiality of any such change or changes), then references to that original primary rate shall be to the original primary rate as changed and modified.

Defined terms used above:

The term "***adjustment date***" means, in respect of an original primary rate event, the later of:

(1) the first date on which the calculation agent had identified a replacement primary rate and determined an adjustment spread, as applicable; and

(2) the first to occur of: (A) the first date on which the original primary rate is no longer available following an original primary rate cessation, or (B) the administrator/benchmark event date, as relevant in relation to such original primary rate event;

The term "***adjustment spread***" means, in respect of a replacement primary rate, the adjustment, if any, to such replacement primary rate that the calculation agent determines, acting in good faith and in a commercially reasonable manner, is required in order to reduce or eliminate, to the extent reasonably practicable, any transfer of economic value from the Issuer to the holders (or vice versa) as a result of the replacement of the original primary rate with such replacement primary rate. Any such adjustment may take account of, without limitation, any transfer of economic value as a result of any difference in the term structure or tenor of the replacement primary rate by comparison to the original primary rate. The adjustment spread may be positive, negative or zero, or determined pursuant to a formula or methodology. If a spread or formula or methodology for calculating a spread has been formally designated, nominated or recommended by any relevant nominating body in relation to the replacement of the original primary rate with such replacement primary rate, that spread shall apply or that formula or methodology shall be used to determine the adjustment spread (as the case may be), and such spread, formula or methodology (as the case may be) shall be adjusted as necessary to reflect the fact that the spread, formula or methodology (as the case may be) is used in the context of the notes. If the calculation agent is required to determine the adjustment spread, it shall consider the spread or formula or methodology for calculating a spread or payment (as applicable), that is, in the determination of the calculation agent, recognised or acknowledged as being the industry standard (or otherwise customarily widely adopted) for over-the-counter derivative transactions which reference such original primary rate.

The term "***administrator/benchmark event***" means the occurrence of a non-approval event, a rejection event or a suspension/withdrawal event, in each case being treated as having occurred on the administrator/benchmark event date.

The term "***administrator/benchmark event date***" means, in respect of an original primary rate, the date determined by the calculation agent to be:

(1) in respect of a non-approval event, the date on which the relevant authorisation, registration, recognition, endorsement, equivalence decision, approval, inclusion in any official register or similar regulatory or legal requirement is required under any applicable law or regulation for the use of such original primary rate in respect of the notes;

(2) in respect of a rejection event, the date on which following the rejection or refusal of the relevant application for authorisation, registration, recognition, endorsement, an equivalence decision, approval or inclusion in any official register, either the Issuer or the calculation agent is not, or will not be, permitted under any applicable law or regulation to use such original primary rate or to perform its or their respective obligations under the notes; and

(3) in respect of a suspension/withdrawal event, the date on which following (A) the suspension or withdrawal by the relevant competent authority or other relevant official body of the authorisation, registration, recognition, endorsement, equivalence decision or approval, or (B) the date on which such original primary rate or the administrator or sponsor of such original primary rate is removed from the official register, as applicable, either the Issuer or the calculation agent is not, or will not be, permitted under any applicable law or regulation to use such original primary rate or to perform its or their respective obligations under the notes.

The term "***alternative post-nominated primary rate***" means, in respect of an original primary rate, any index, benchmark or other price source which is formally designated, nominated or recommended by:

(1) any relevant nominating body; or

(2) the administrator or sponsor of the original primary rate, provided that such index, benchmark or other price source is substantially the same as the original primary rate,

in each case, to replace such original primary rate. If a replacement index, benchmark or other price source is designated, nominated or recommended under both paragraphs (1) and (2) above, then the replacement index, benchmark or other price source designated, nominated or recommended under paragraph (1) shall be the alternative post-nominated primary rate.

The term "***non-approval event***" means, in respect of an original primary rate, the determination by the calculation agent that one or more of the following events has occurred:

(1) any authorisation, registration, recognition, endorsement, equivalence decision or approval in respect of such original primary rate or the administrator or sponsor of such original primary rate is not obtained;

(2) such original primary rate or the administrator or sponsor of such original primary rate is not included in an official register; or

(3) such original primary rate or the administrator or sponsor of such original primary rate does not fulfil any legal or regulatory requirement applicable to the Issuer or the calculation agent or such original primary rate,

in each case, with the effect that either the Issuer or the calculation agent is not, or will not be, permitted under any applicable law or regulation to use such original primary rate to perform its or their respective obligations under the notes, provided that a non-approval event shall not occur if such original primary rate or the administrator or sponsor of such original primary rate is not included in an official register because its authorisation, registration, recognition, endorsement, equivalence decision or approval is suspended if, at the time of such suspension, the continued provision and use of such original primary rate is permitted in respect of the notes under the applicable law or regulation.

The term "***original primary rate***" means, initially the applicable Term Rate, Overnight Rate, CMS Reference Rate or other reference rate, as the case may be; provided, that if an original primary rate event and its related adjustment date have occurred with respect to such initial rate (or any successor original primary rate) the "original primary rate" means the applicable replacement primary rate plus adjustment spread.

The term "***original primary rate cessation***" means, in respect of an original primary rate, the determination by the calculation agent that one or more of the following events has occurred:

(1) a public statement or publication of information by or on behalf of the administrator of such original primary rate announcing that it has ceased or will cease to provide such original primary rate permanently or indefinitely, provided that, at the time of such public statement or publication, there is no successor administrator that will continue to provide such original primary rate;

(2) a public statement or publication of information by the supervisory authority of the administrator of such original primary rate, the central bank for the currency of such original primary rate, an insolvency official with jurisdiction over the administrator of such original primary pate, a resolution authority with jurisdiction over the administrator of such original primary rate or a court or an entity with similar insolvency or resolution authority over the administrator of such original primary rate announcing that the administrator has ceased or will cease to provide such original primary rate permanently or indefinitely, provided that, at the time of such public statement or publication, there is no successor administrator that will continue to provide such original primary rate; or

(3) any event which otherwise constitutes an "index cessation event" in the definition of such original primary rate (regardless of how it is actually defined or described in the

definition of such original primary rate in the 2021 ISDA definitions published by the International Swaps and Derivatives Association, Inc.) in relation to which the priority fallback(s) specified (if any) fail to provide appropriate means of determining the rate of interest,

provided that, in each case, an original primary rate cessation shall only occur if the first day on which such original primary rate is no longer available falls on or before the maturity date.

The term "***original primary rate event***" means, in respect of an original primary rate, the determination by the calculation agent that one or more of the following events has occurred:

(1) an original primary rate cessation; and

(2) an administrator/benchmark event.

The term "***priority fallback***" means, in respect of an original primary rate, if the definition of such original primary rate includes a reference to a concept defined or otherwise described as an "index cessation event" (regardless of the contents of that definition or description), any fallback specified in that definition or description to apply following the occurrence of such an event.

The term "***rejection event***" means, in respect of an original primary rate, the determination by the calculation agent that the relevant competent authority or other relevant official body has rejected or refused any application for authorisation, registration, recognition, endorsement, an equivalence decision, approval or inclusion in any official register in relation to such original primary rate or the administrator or sponsor of such original primary rate, with the effect that either the Issuer or the calculation agent is not, or will not be, permitted under any applicable law or regulation to use such original primary rate to perform its or their respective obligations under the notes.

The term "***relevant nominating body***" means, in respect of an original primary rate:

(1) the central bank for the currency in which such original primary rate is denominated or any central bank or other supervisory authority which is responsible for supervising such original primary rate or the administrator of such original primary rate; or

(2) any working group or committee officially endorsed or convened by (A) the central bank for the currency in which such original primary rate is denominated, (B) any central bank or other supervisory authority which is responsible for supervising such original primary rate or the administrator of such original primary rate, (C) a group of those central banks or other supervisory authorities, or (D) the Financial Stability Board or any part thereof.

The term "***replacement primary rate***" means, in respect of an original primary rate, the alternative post-nominated primary rate, provided that if more than one relevant nominating body formally designates, nominates or recommends an alternative post-nominated primary rate, and those designations, nominations or recommendations are not the same, then the calculation agent shall select the alternative post-nominated primary rate in its discretion, acting in good faith and in a commercially reasonable manner.

If the calculation agent determines that (A) there is no alternative post-nominated primary rate, or (B) the alternative post-nominated primary rate is not a suitable replacement for the original primary rate and/or the replacement of the original primary rate with the alternative post-nominated primary rate will not achieve a commercially reasonable result, the replacement primary rate shall be such other rate, index, benchmark or other price source selected by the calculation agent, in its discretion, acting in good faith and in a commercially reasonable manner. If the calculation agent is required to select the replacement primary rate as a result of there being no alternative post-nominated primary rate, it may take into account the rate that is, in the determination of the calculation agent, recognised or acknowledged as being the industry standard (or otherwise customarily widely adopted) replacement rate for over-the-counter derivative transactions which reference such original primary rate.

The term "***suspension/withdrawal event***" means, in respect of an original primary rate, the determination by the calculation agent that one or more of the following events has occurred:

(1) the relevant competent authority or other relevant official body suspends or withdraws any authorisation, registration, recognition, endorsement, equivalence decision or approval in relation to such original primary rate or the administrator or sponsor of such original primary rate; or

(2) such original primary rate or the administrator or sponsor of such original primary rate is removed from any official register,

in each case, with the effect that either the Issuer or the calculation agent is not, or will not be, permitted under any applicable law or regulation to use such original primary rate to perform its or their respective obligations under the notes, provided that a suspension/withdrawal event shall not occur if such authorisation, registration, recognition, endorsement, equivalence decision or approval is suspended or where inclusion in any official register is withdrawn if, at the time of such suspension or withdrawal, the continued provision and use of such original primary rate is permitted in respect of the notes under the applicable law or regulation.

Indexed Notes

This subsection provides information that may be relevant to your note if it is linked to an underlyer. The applicable final terms will provide any additional information necessary to complete the information provided below. In addition, the applicable final terms will contain disclosure with respect to any licensing arrangements we may enter into with the relevant underlyer sponsor. We do not intend to provide post-issuance information with respect to any underlyer, unless otherwise required by applicable laws and regulations.

Historical levels for the underlyer or underlyers of an indexed note are not indicative of future levels. If we issue an indexed note, we may cross-reference to historical information about the relevant underlyer or underlyers in the applicable final terms. Any information about underlyers that we may reference will be furnished as a matter of information only, and you should note that historical underlyer levels, fluctuations and trends are not necessarily indicative of future underlyer levels. Any historical upward or downward trend in underlyer levels is not an indication that the levels of the underlyer or underlyers are more or less likely to increase or decrease at any time during the life of an indexed note, and you should not take historical underlyer levels as an indication of future performance.

A note of this type will bear interest, if any, at rates that are determined by reference to one of the interest rate formulae described below or another rate as specified in your final terms. In some cases, the rates may be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate, or to other provisions, as described in greater detail below. If your note is an indexed note, the inputs to the formula set out below, and any adjustments that apply to the interest rate, will be specified in your final terms.

Each indexed note will bear interest, if any, from its original issue date or from the most recent interest payment date. Interest, if any, will accrue on the principal of an indexed note at the annual rate determined according to the interest rate formula stated in the note and the applicable final terms, until the principal is paid or made available for payment. We will pay interest, if any, on each interest payment date and at maturity as described under "— Payment Mechanics for Notes" below.

Whether or not a maximum rate applies, the interest rate on an indexed note will in no event be higher than the maximum rate permitted by New York law, as it may be modified by U.S. law of general application. Under current New York law, the maximum rate of interest, with some exceptions, for any loan in an amount less than $2,500,000 is 25% per year on a simple interest basis. No limits apply to loans of $2,500,000 or more.

Underlyers

We may issue indexed notes linked to one or more of the following underlyers, as specified in your final terms:

- a Base Rate (as defined above in "— Interest Rates — Floating Rate Notes")
- a stock index
- a foreign currency exchange rate (as defined below in "— Currencies and Foreign Currency Exchange Rates"

If your indexed note is linked to a Base Rate, references to an "interest reset date" or "interest reset dates" contained in the section "— Interest Rates — Floating Rate Notes — General Terms and Conditions" shall be deemed to refer to the "Averaging Date", "Initial Averaging Date", "Initial Observation Date", "Final Observation Date", "Valuation Date" or "Initial Valuation Date", as applicable.

We will not issue any indexed notes composed by the Issuer or any subsidiary.

Currencies and Foreign Currency Exchange Rates

An underlyer may be a foreign currency exchange rate, in which case the "Underlyer" will be specified in the following format in the applicable final terms "[*ccy1*][*ccy2*] FX Fixing".

When specified in this format, each of "ccy1" and "ccy2" will be one of the following currencies, or another currency which we have not decided on as of the date of this base prospectus:

- "AUD" which is Australian dollar
- "USD" which is U.S. dollar
- "NZD" which is New Zealand dollar
- "INR" which is Indian rupee
- "SGD" which is Singapore dollar
- "TWD" which is Taiwanese dollar
- "EUR" which is euro
- "GBP" which is Pounds sterling
- "JPY" which is Japanese yen
- "CHF" which is Swiss franc

The rate of a foreign currency exchange rate on any underlyer daily fixing date will be the rate expressed as the number of "ccy2" for which one "ccy1" could be purchased. The calculation agent will determine the rate as the rate that appears on the "Fixing Page" specified in the final terms (or any successor or replacement service or page) at the "Fixing Time" specified in the final terms on such underlyer daily fixing date. If "bid" or "ask" is specified in the "Bid/Ask/Mid" column in the applicable final terms, the applicable rate will be the one that appears under the "bid" or "ask" column, respectively, on the "Fixing Page" specified in the final terms (or any successor or replacement service or page). If "mid" is specified in the "Bid/Ask/Mid" column in the applicable final terms, the applicable rate will be calculated by the calculation agent as the average of the rates that appear under the "bid" or "ask" columns on the "Fixing Page" specified in the final terms (or any successor or replacement service or page). In the event the calculation agent determines that on any underlyer daily fixing date the "Fixing Page" specified in the final terms is no longer published and no replacement symbol or page is designated, or is not published as of

the designated date and time, or the applicable rate does not appear on the "Fixing Page" specified in the final terms, the calculation agent will determine the rate of the applicable exchange rate underlyer in its sole discretion.

Interest Rate Formulae

Range Accrual Notes

If "Range Accrual Provisions" is specified as Applicable in the applicable final terms in respect of one or more interest periods, this section shall apply to your notes.

Interest will accrue on each Underlyer Daily Fixing Date on a Range Accrual Note at the Interest Rate specified in the applicable final terms, provided that the level of the Underlyer Daily Fixing, or each Underlyer Daily Fixing, as the case may be, on such day falls within the accrual range applicable to each relevant underlyer. Interest payments on a Range Accrual Note will be subject to range accrual on one or more Underlyers, such Underlyers to be any of the Underlyers described above. The "Accrual Range" and "Underlyer Daily Fixing" for each "Underlyer" will be specified in your final terms.

The interest periods are the period from and including an interest payment date (or the interest commencement date, in the case of the initial interest periods) to but excluding the next succeeding interest payment date (or the stated maturity date, in the case of the final interest periods). Interest on the notes if any, will accrue on each calendar day, from and including each originally scheduled interest payment date (or the interest commencement date, in the case of the initial interest periods) to but excluding the next succeeding originally scheduled interest payment date (or the originally scheduled stated maturity date, in the case of the final interest periods) and be paid on each interest payment date provided that the level of "Underlyer Daily Fixing" (as specified in the final terms) on the relevant underlyer daily fixing date falls within the "Accrual Range" applicable to the relevant underlyer (as specified in the Final Terms and subject to the rate cut-off described below); otherwise no interest will accrue on such day.

The underlyer daily fixing dates are, with respect to each interest periods, each calendar day in such interest periods, (subject to the rate cut-off described below); provided that in the event that an underlyer daily fixing date falls on a day that is not a business day, the underlyer daily fixings on the immediately preceding day that is a business day shall be used.

The rate cut-off will occur on the date five (5) business days prior to the next succeeding originally scheduled interest payment date. The level of each underlyer daily fixing on the rate cut-off date will determine the level of the underlyer daily fixings for the relevant underlyer for the remaining calendar days of such interest periods, i.e., the underlyer daily fixing for each underlyer calculated five (5) business days prior to the next succeeding originally scheduled interest payment date will be the underlyer daily fixing for such underlyer for all calendar days remaining in such interest periods.

In this subsection entitled "Range Accrual Notes", we use several terms that have special meanings relevant to range accrual notes. We define these terms as follows:

The term "***currency exchange rate***" means any foreign currency exchange rate defined above that is specified as an "underlyer" in the applicable final terms.

The term "***underlyer***" means underlyer as described above under "Indexed Notes—Underlyers" specified as such in the applicable final terms.

When "***daily range accrual***" is specified in your final terms, interest on the notes will accrue on each day at the interest rate (or rates, if different interest rates apply in different interest periods) specified in the final terms, from and including the interest commencement date to but excluding the originally scheduled maturity date unless the notes are redeemed early pursuant to an early redemption feature of the notes, provided that the level of each underlyer daily fixing on the relevant underlyer daily fixing date falls within the accrual range applicable to the relevant underlyer, subject to, if applicable, the rate cut-off; otherwise no interest will accrue on such day.

The term "***accrual range***" means, with respect to an underlyer, all values of the underlyer *greater* or *less* than, as applicable, and, if specified, *equal* to a specified value, *or*, if the accrual range of the underlyer has both upper and lower boundaries, all values of the underlyer that are both (i) *greater* than and, if specified, *equal* to a specified lower boundary underlyer value and (ii) *less* than and, if specified, *equal* to a specified upper boundary underlyer value.

The term "***rate cut-off date***" means, with respect to each interest periods, the date that falls five Business Days prior to the next succeeding originally scheduled interest payment date.

With respect to each interest periods, during the period from and including the relevant "***rate cut-off date***" to but excluding the next succeeding originally scheduled interest payment date, the level of each underlyer daily fixing (as defined below) on the rate cut-off date will determine the level of the underlyer daily fixing for the relevant underlyer for the remaining calendar days of such interest periods, *i.e.*, the underlyer daily fixing for each underlyer calculated on the relevant rate cut-off date will be the underlyer daily fixing for such underlyer for all calendar days remaining in the relevant interest periods.

The term "***underlyer daily fixing date***" means, with respect to an interest periods, each calendar day in such interest periods, subject to rate cut-off.

The term "***underlyer daily fixings***" means, with respect to an underlyer, the reference price of the underlyer on the applicable underlyer daily fixing date.

Steepener and Flattener Notes

If your final terms specify that "Steepener / Flattener" is Applicable for any interest period, the final terms will also specify a Base Rate 1, a Base Rate 2 and one or more of a Participation Rate, Cap Level, Floor Level, whether "Worst-Of Steepener" is Applicable or Not Applicable, and if "Worst-Of Steepener" is Applicable, a Comparison Base Rate.

If "Worst-Of Steepener" is specified in your final terms as Not Applicable, for each applicable Interest Period indicated in your final terms, your note will bear interest at a rate per annum equal to the Participation Rate *times* the *difference between* (x) the Base Rate 1 *multiplied by* the Base Rate 1 Multiplier (if any) *minus* (y) the Base Rate 2 *multiplied by* the Base Rate 2 Multiplier (if any), subject to the Minimum Rate and/or Maximum rate (if any) specified in your final terms. Each of Base Rate 1 and Base Rate 2 will be one of the floating rates specified under "— Interest Rates — Floating Rate Notes", and the rate of interest for each will be determined as set forth therein. For the avoidance of doubt, the interest rate per annum in respect of each applicable interest period will be calculated according to the following formula, subject to the Minimum Rate and/or Maximum (if any) specified in your final terms:

$$\text{Participation Rate} \times \left(\text{Base Rate}_1 \times \text{BR}_1\text{Multiplier} - \text{Base Rate}_2 \times \text{BR}_2\text{Multiplier}\right) + \text{Spread}$$

If "Worst-Of Steepener" is specified in your final terms as Applicable, for each applicable Interest Period indicated in your final terms, your note will bear interest at a rate per annum equal to the *lower of* (A) the Comparison Base Rate *times* the Comparison Base Rate Multiplier *plus* the Comparison Base Rate Spread *and* (B) the Participation Rate *times* the *difference between* (x) the Base Rate 1 *multiplied by* the Base Rate 1 Multiplier (if any) *minus* (y) the Base Rate 2 *multiplied by* the Base Rate 2 Multiplier (if any), subject to the Minimum Rate and/or Maximum rate (if any) specified in your final terms. Each of the Comparison Base Rate, Base Rate 1 and Base Rate 2 will be one of the floating rates specified under "— Interest Rates — Floating Rate Notes", and the rate of interest for each will be determined as set forth therein. For the avoidance of doubt, the interest rate per annum in respect of each applicable interest period will be calculated according to the following formula, subject to the Minimum Rate and/or Maximum (if any) specified in your final terms:

$$\text{Min}\left\{\begin{array}{l}\text{Comparision Base Rate} \times \text{Comparison Base Rate Multiplier} + \text{Comparison Base Rate Spread},\\ \text{Participation Rate} \times \left(\text{Base Rate}_1 \times \text{BR}_1\text{Multiplier} - \text{Base Rate}_2 \times \text{BR}_2\text{Multiplier}\right) + \text{Spread}\end{array}\right\}$$

Asian Performance Notes

If your final terms specify that "Asian Performance" is Applicable for any interest payment date, the final terms will also specify in the "Index Information Table" one or more indices and Weightings (which may be 100%) that apply to each Index and whether "Absolute" is Applicable or Note Applicable.

If Absolute is specified in your final terms to be Not Applicable, on each applicable Interest Payment Date listed in the "Interest Rate Table", your note will pay a coupon in amount equal to the (a) face amount of your notes *multiplied by* (b) the *sum* of (i) the *quotient* of (x) the Participation Rate specified in your final terms *multiplied by* the *difference between* (aa) the Basket Performance determined in respect of that Interest Payment Date *minus* (bb) one *divided by* (y) the Interest Period Number corresponding to such Interest Payment Date listed in the "Interest Rate Table" *plus* (ii) the Spread specified in your final terms, if any, (which may be positive or negative), as determined by the calculation agent, subject to the Minimum Rate and/or Maximum Rate (if any) specified in your final terms. For the avoidance of doubt, the coupon payable in respect of any interest period will be calculated according to the following formula:

$$Face \times \left\{ \frac{\text{Participation Rate} \times \left(\text{Basket Performance} - 1 \right)}{\text{InterestPeriod}} + \text{Spread} \right\}$$

If Absolute is specified in your final terms to be Applicable, on each applicable Interest Payment Date listed in the "Interest Rate Table", your note will pay a coupon in amount equal to (a) face amount of your notes *multiplied by* (b) the *sum* of (i) the *quotient* of (x) the Participation Rate specified in your final terms *multiplied by* the *absolute value* of the *difference between* (aa) the Basket Performance determined in respect of that Interest Payment Date *minus* (bb) one *divided by* (y) the Interest Period Number corresponding to such Interest Payment Date listed in the "Interest Rate Table" *plus* (ii) the Spread specified in your final terms, if any, (which may be positive or negative), as determined by the calculation agent, subject to the Minimum Rate and/or Maximum Rate (if any) specified in your final terms. The absolute value of a number is (i) if the number is zero or positive, the number and (ii) if the number is negative, the number multiplied by -1. For the avoidance of doubt, the coupon payable in respect of any interest period will be calculated according to the following formula:

$$Face \times \left\{ \frac{\text{Participation Rate} \times \left| \left(\text{Basket Performance} - 1 \right) \right|}{\text{InterestPeriod}} + \text{Spread} \right\}$$

where vertical lines in the formula mean to take the absolute value of the amount between the vertical lines.

Digital Notes

If your final terms specify that "Digital" is Applicable for any interest period, the final terms will also specify in the "Index Information Table" one or more indices and Barrier Levels that apply to each Index. If your final terms specify that "Floating Coupon" is applicable for such interest period, subject to the Index Performance Condition, the interest rate for that period will be determined by reference to a base rate or an interest rate formula specified in your final terms; see "General Note Conditions — Interest Rates — Floating Rate Notes" for definitions of relevant base rates and other terms that may be used in the relevant interest rate formula.

If "Lock-In" is specified as "Not Applicable", for each applicable interest period, if the Digital Condition is met, your note will bear interest at the fixed or floating rate per annum specified in your final terms in the "Interest Rate Table" under the heading "Applicable Coupon" in the row with the corresponding Interest Payment Date; otherwise, your note will not bear interest for such Interest Period.

If "Lock-In" is specified as "Applicable", for each applicable interest period, if either (a) the Digital Condition or (b) the Lock-In Condition is met, your note will bear interest at the fixed or floating rate per annum specified in your final terms in the "Interest Rate Table" under the heading "Applicable Coupon" in

the row with the corresponding Interest Payment Date; otherwise, your note will not bear interest for such Interest Period.

If "Worst-Of", "Worst-Of" and "Multiple Conditions" are specified as "Not Applicable", your final terms will specify only one Index, and for each relevant interest period, the Digital Condition will be met if the Index Performance Condition is met in respect of such Index for such interest period.

If "Worst-Of" is specified as "Applicable", your final terms will specify more than one Index, and for each relevant Interest Period, the Digital Condition will be met if and only if the Index Performance Condition is met in respect of the Worst Performing Index for such Interest Period.

If "Best-Of" is specified as "Applicable", your final terms will specify more than one Index, and for each relevant Interest Period, the Digital Condition will be met if and only if the Index Performance Condition is met in respect of the Best Performing Index for such Interest Period.

If "Multiple Conditions" is specified as "Applicable", your final terms will specify more than one Index, and for each relevant Interest Period, the Digital Condition will be met if and only if the Index Performance Condition is met in respect of each Index for such Interest Period.

If "Performance Measure" is specified as "Equal to or Greater Than" with respect to an Index in the Index Information Table, for each relevant Interest Period, the Index Performance Condition will be met in respect of such Index if the Index Performance of the Index is *equal to* or *greater than* the Barrier Level corresponding to that Index specified in the Index Information Table under "Barrier Level", as determined by the calculation agent.

If "Performance Measure" is specified as "Greater Than" with respect to an Index in the Index Information Table, for each relevant Interest Period, the Index Performance Condition will be met in respect of such Index if the Index Performance of the Index is *greater than* the Barrier Level corresponding to that Index specified in the Index Information Table under "Barrier Level", as determined by the calculation agent.

If "Performance Measure" is specified as "Equal to or Less Than" with respect to an Index in the Index Information Table, for each relevant Interest Period, the Index Performance Condition will be met in respect of such Index if the Index Performance of the Index is *equal to* or *less than*, the Barrier Level corresponding to that Index specified in the Index Information Table under "Barrier Level", as determined by the calculation agent.

If "Performance Measure" is specified as "Less Than" with respect to an Index in the Index Information Table, for each relevant Interest Period, the Index Performance Condition will be met in respect of such Index if the Index Performance of the Index is *less than*, the Barrier Level corresponding to that Index specified in the Index Information Table under "Barrier Level", as determined by the calculation agent.

If "Interest Protection" is specified as "Applicable", for each applicable interest period, if the Digital Condition is met, you will receive the *sum of* (a) the interest payment payable in respect of such interest period, as described above *plus* (b) the Protection Amount.

The Lock-In Condition is met in respect of any Interest Period (or in respect of the Valuation Date with respect to the Amount Payable at Maturity (Final Redemption Amount)) if the Digital Condition was met for any prior Interest Period.

OutPerformance Notes

If your final terms specify that "OutPerformance" is Applicable for any interest period, the final terms will also specify in the "Index Information Table" a Primary Index, a Secondary Index and a Performance Factor (which may be positive or negative). If your final terms specify that "Floating Coupon" is applicable for such interest period, subject to the OutPerformance Condition, the interest rate for that period will be determined by reference to a base rate or an interest rate formula specified in your final terms; see "General Note Conditions — Interest Rates — Floating Rate Notes" for definitions of relevant base rates and other terms that may be used in the relevant interest rate formula.

For any Interest Period, if the OutPerformance Condition is met, your note will bear interest at the fixed rate or floating rate per annum specified in your final terms in the "Interest Rate Table" under the heading "Applicable Coupon" in the row with the corresponding Interest Payment Date; otherwise, your note will not bear interest for such Interest Period.

For each relevant Interest Period, the OutPerformance Condition will be met in an applicable Interest Period if the Index Performance of the Primary Index is *equal to* or *greater than*, the *sum of* (x) the Index Performance of the Secondary Index *plus* (y) the Performance Factor (which may be positive or negative), as determined by the calculation agent.

UDI-Linked Notes

If your final terms specify that "Interest Rate Note Provisions" is Applicable and "UDI-Linked" is Applicable for any interest period, then your note will bear interest from the "Interest Commencement Date" specified in your final terms, or from the most recent interest payment date to which interest on the note has been paid or made available for payment, at an amount equal to the product of (i) a fixed rate per annum, or at fixed rates per annum, stated in applicable final terms as the "Interest Rate" *times* (ii) the UDI-Linked Notional Amount *times* (iii) the UDI Index Level for the relevant interest determination date. The terms "UDI Linked Notional Amount" and "UDI Index Level" shall have the meanings set forth under "– Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" below.

The interest amount payable on an interest payment date with respect to an interest period will be determined by the calculation agent by reference to a particular date called an interest determination date. The interest determination dates applicable to each interest period will be specified as the "Interest Determination Dates" in the applicable final terms. If any interest determination date would otherwise be a day that is not a business day, the interest determination date will be adjusted in accordance with the applicable business day convention. The interest period for each payment of interest due on an interest payment date or at maturity will include interest accrued from and including the last date to which interest has been paid or made available for payment, or from the interest commencement date if none has been paid or made available for payment, to, but excluding, the interest payment date, the date of maturity or the relevant early redemption date, in each case subject to the business day convention. We will compute interest on UDI-linked notes on the basis of the day count convention specified in your final terms; see "— Day Count Conventions" above. We will pay interest on each interest payment date and at maturity as described under "— Payment Mechanics for Notes" below.

Indexed Notes Terms

In this subsection entitled "Indexed Notes" and elsewhere in this Base Prospectus, we use several terms that have special meanings relevant to indexed notes. We define these terms as follows:

Averaging Dates means, if Averaging is "Applicable", in respect of each Payment Date, the dates specified as Average Dates, or each of the dates specified under the heading "Observation Dates" in the relevant Interest Rate Table relating to such Payment Date, as applicable, in the relevant final terms, subject to adjustment (as an Averaging Observation Date) as described under "Stock Indices — Adjustments — Averaging Observation Dates".

Basket Performance means the aggregate of the Weighted Performance of each Index in the Index Basket.

Best Performing Index means the Index with the highest Index Performance, as determined by the calculation agent. In the event that two or more Indexes have the same highest Index Performance, then the calculation agent shall determine in its sole and absolute discretion which of such Indexes shall be the Best Performing Index, and such Index as so selected shall be deemed the Best Performing Index.

BR Multiplier means the percentage as specified in the relevant final terms.

Final Observation Dates means, if Final Observation Period is "Applicable", each date specified as such in your final terms, subject to adjustment (as an Observation Date) as described under "Stock Indices — Adjustments".

Index means each Index specified in the relevant final terms and any successor Index, in each case as it may be modified, replaced or adjusted from time to time, as determined by the calculation agent.

Index Currency means, in respect of an Index, the currency specified as such in the relevant final terms, or if not specified, the currency which the relevant level of the Index is reported or published as determined by the calculation agent, if applicable.

Index Performance means an amount equal to Reference Price (Final) *divided by* Reference Price (Initial).

Index Sponsor means, for each Index, the entity specified in the relevant final 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.

Index Valuation Time means the time in the place as specified in the relevant final terms.

Initial Averaging Dates means, if Averaging is "Applicable", each date specified as such in your final terms, subject to adjustment (as a Averaging Observation Date) as described under " — Stock Indices — Adjustments — Averaging Observation Date".

Initial Observation Dates means, if Initial Observation Period is "Applicable", each date specified as such in your final terms, subject to adjustment (as an Observation Date) as described under "Stock Indices — Adjustments".

Initial Valuation Date means, if Averaging is "Not Applicable", the date specified as such in your final terms, subject to adjustment (as an Observation Date) as described under "Stock Indices — Adjustments".

Observation Date means each Averaging Date, each Initial Averaging Date, each Initial Observation Date, each Final Observation Date, each Valuation Date and the Initial Valuation Date, as applicable, as specified in the applicable final terms, subject to any relevant adjustments described herein.

Participation Rate means the percentage as specified in the relevant final terms.

Payment Date means each Interest Payment Date and the Maturity Date, as applicable.

Protection Amount means, in respect of any interest period for an Indexed (Digital) note, the *sum* of any interest payment(s) that would have been payable in respect of any preceding interest period(s) but for the fact that the Digital Condition was not met in respect of such interest periods and were not so paid (each such payment, a "Catch-Up Payment"); *provided that* once a Catch-Up Payment has been paid in respect of any interest period, no further payments will be made in respect of such interest period.

Reference Index Level means, in respect of an Index and any relevant day, the official closing level of the Index or, if an Index Valuation Time other than "closing" is specified with respect to a relevant Index in your final terms, the level of such Index as at the specified Index Valuation Time on such relevant day as calculated and published by the Index Sponsor (in each case, expressed in the relevant Index Currency (if specified in the relevant final terms) applicable to the Index), as determined by the calculation agent.

Reference Price means the official closing level of the relevant underlyer as of the relevant observation date as published by the underlyer sponsor.

Reference Price (Final) means, in respect of each applicable Payment Date:

- if your final terms specify "Averaging" and "Final Observation Period" to be Not Applicable in respect of such Payment Date, the Reference Index Level of the Index on the Valuation Date corresponding to such Payment Date
- if your final terms specify "Averaging" to be Applicable in respect of such Payment Date, the arithmetic mean of the Reference Index Levels of the Index on each of the Averaging Dates corresponding to such Payment Date, as determined by the calculation agent
- if your final terms specify "Final Observation Period" to be Applicable and "Observation Level" to be "Lowest" in respect of such Payment Date, the lowest Reference Index Level of the Index observed on the Final Observation Dates corresponding to such Payment Date, as determined by the calculation agent
- if your final terms specify "Final Observation Period" to be Applicable and "Observation Level" to be "Highest" in respect of such Payment Date, the highest Reference Index Level of the Index observed on the Final Observation Dates corresponding to such Payment Date, as determined by the calculation agent

Reference Price (Initial) means:

- if your final terms provides a number, the amount so specified
- if your final terms specify "Initial Reference Price", the Reference Index Level of the Index on the Initial Valuation Date
- if your final terms specify "Initial Average Price", the arithmetic mean of the Reference Index Levels of the Index on each of the Initial Averaging Dates, as determined by the calculation agent
- if your final terms specify "Initial Lowest Price", the lowest Reference Index Level of the Index observed on the specified Initial Observation Dates, as determined by the calculation agent
- if your final terms specify "Initial Highest Price", the highest Reference Index Level of the Index observed on the specified Initial Observation Dates, as determined by the calculation agent

Underlyer means any underlyer specified as such in the applicable final terms and any successor underlyer, in each case as it may be modified, replaced or adjusted from time to time, as indicated above.

Underlyer Sponsor means, at any time, the person or other entity, including any successor sponsor, that is (i) responsible for setting and reviewing the rules and procedures for the methods of calculation and adjustments, if any, related to the relevant underlyer and (ii) announces (directly or through an agent) the level of the relevant underlyer on a regular basis on each exchange business day, all as determined by the calculation agent.

Valuation Date means, if Averaging and Final Observation Period are "Not Applicable", in respect of each Payment Date, the date specified as the Valuation Date, or the date specified under the heading "Observation Dates" in the relevant Interest Rate Table relating to such Payment Date, as applicable, subject to adjustment (as an Observation Date) as described under "Stock Indices — Adjustments".

Weighted Performance means, in respect of each Index in the Index Basket, an amount calculated by the calculation agent in accordance with the following formula:

$$\text{Weighting} \times \frac{\text{Reference Price (Final)}}{\text{Reference Price(Initial)}}$$

Weighting means in the relevant "Index Information Table" set out in the final terms, in respect of each Index set forth in the Index Table in the column entitled "Index", the amount set forth in the column entitled "Weighting" in the row corresponding to such Index.

Worst Performing Index means the Index with the lowest Index Performance, as determined by the calculation agent. In the event that two or more Indexes have the same lowest Index Performance, then the calculation agent shall determine in its sole and absolute discretion which of such Indexes shall be the Worst Performing Index, and such Index as so selected shall be deemed the Worst Performing Index

Stock Indices

Exchange Business Days

An Exchange Business Day with respect to a stock Index will be any day with respect to which a Reference Price with respect to such Index is or, but for the occurrence of a Market Disruption Event, would have been published by the Underlyer Sponsor.

Market Disruption Events

Any of the following will be a Market Disruption Event with respect to a stock Index:

- a suspension, absence or material limitation of trading in index components constituting 20% or more of the Index on their respective primary markets, in each case for more than two hours of trading or during the one hour before the close of trading in that market, as determined by the calculation agent in its sole discretion; or

- a suspension, absence or material limitation of trading in options or futures contracts relating to the Index or to index components constituting 20% or more, by weight, of the Index, if available, in the respective primary markets for those contracts, in each case for more than two hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion; or

- index components constituting 20% or more, by weight, of the Index, or options or futures contracts relating to the Index or to index components constituting 20% or more, by weight, of the Index, if available, do not trade on what were the respective primary markets for those index components or contracts, as determined by the calculation agent in its sole discretion; or

- an unannounced closure of the primary markets relating to index components constituting 20% or more of the Index; or

- a material event (other than the immediately preceding bullet point) that disrupts the ability of market participants effecting transactions in, or obtaining market values during the one hour period before the valuation time (typically the closing time), for (i) the index components constituting 20% or more of the Index or (ii) options or futures contracts relating to the Index;

and, in any of these events, the calculation agent determines in its sole discretion that the event could materially interfere with our ability or the ability of any of our affiliates to unwind all or a material portion of a hedge that could be effected with respect to the notes.

Neither of the following events will be a market disruption event with respect to a stock Index:

- a limitation on the hours or number of days of trading, but only if the limitation results from a previously announced change in the business hours of the relevant market, or

- a decision to permanently discontinue trading in options or futures contracts relating to the Index or to any index component.

For purposes of determining whether a Market Disruption Event has occurred, an "absence of trading" in the primary securities market on which a component of a stock Index is traded or on which options or futures contracts relating to The index or an index component are traded will not include any time when that market is itself closed for trading under ordinary circumstances. In contrast, a suspension or limitation of trading in any index component or in options or futures contracts relating to the Index or any index component in the primary market for that index component or those contracts, by reason of:

- a price change exceeding limits set by that market,
- an imbalance of orders relating to the index component or those contracts, or
- a disparity in bid and ask quotes relating to that index component or those contracts,

will constitute a suspension or material limitation of trading in that index component or those contracts in that primary market.

Adjustments

Non-Exchange Business Days — Single Index

If any Observation Date with respect to a stock Index falls on a day that is not an Exchange Business Day with respect to such Index, such date with respect to such Index will be postponed to the next following Exchange Business Day. However, in no event will any Observation Date with respect to a stock Index be postponed by more than the Maximum Days of Postponement (as specified in the final terms) after the scheduled date for that Observation Date. If an Observation Date which immediately precedes the Stated Maturity Date or any Payment Date for the relevant note is postponed, the Stated Maturity Date or Payment Date will be postponed by the same number of Business Day(s) from and excluding the originally scheduled Observation Date to and including the actual Observation Date, subject to a maximum of the Maximum Days of Postponement; provided, however, that if the rescheduled Observation Date is more than five Business Days prior to the stated Maturity Date or Payment Date, then such stated Maturity Date or Payment Date shall not be postponed.

Market Disruption Events — Single Index

If a Market Disruption Event occurs or is continuing with respect to a stock Index on any day that otherwise would be an Observation Date with respect to such Index, such date with respect to such Index will be postponed to the next following day that is both an Exchange Business Day with respect to such Index and a day on which no Market Disruption Event occurs or is continuing with respect to such Index. In no event, however, will any Observation Date with respect to a stock Index be postponed by more than the Maximum Days of Postponement (as specified in the final terms) after the scheduled date for that Observation Date. If an Observation Date which immediately precedes the stated Maturity Date or any Payment Date for the relevant note is postponed, the stated Maturity Date or Payment Date will be postponed by the same number of Business Day(s) from and excluding the originally scheduled Observation Date to and including the actual Observation Date, subject to a maximum of the Maximum Days of Postponement; provided, however, that if the rescheduled Observation Date is more than five Business Days prior to the stated Maturity Date or Payment Date, then such stated Maturity Date or Payment Date shall not be postponed.

If an Observation Date with respect to a stock Index is postponed to the last possible day but a Market Disruption Event occurs or is continuing on that day with respect to such index or if no reference price is published by the Underlyer Sponsor with respect to that day, that day will nevertheless be an Observation Date with respect to such Index. If the calculation agent determines that a reference price with respect to the relevant Index is not published by The Underlyer Sponsor with respect to the postponed Observation Date, the calculation agent will determine the Reference Price of the Index in its sole discretion in accordance with the formula and method of calculating this index last in effect prior to the occurrence of the first of the above events using the exchange traded or quoted prices of each index stock comprised in the relevant Index as of the close of trading in that market on that day falling the Maximum Days of Postponement after the scheduled Observation Date. However, if any of the above events has occurred in

respect to the relevant index stock on that day falling the Maximum Days of Postponement after the scheduled Observation Date, the calculation agent will use its good faith estimate of the value for the relevant index stock as of the close of trading in that market on that day.

Multiple Underlyer Indices and Observation Dates — Common Exchange Business Day but Individual Market Disruption Event

Where the notes are linked to two or more indices (such indices being "**Underlyer Indices**" and each an "**Underlyer Index**") (e.g., an Asian Absolute Performance note or a Digital note) and the final terms specify that "Common Market Disruption Events" is Not Applicable, the following provisions shall apply:

- if a scheduled Observation Date is not an Exchange Business Day with respect to any of the Underlyer Indices and no market disruption event occurs or is continuing, the Observation Date will be postponed to the next day that is an Exchange Business Day for all Underlyer Indices; or

- if a scheduled observation date is an Exchange Business Day for all Underlyer Indices but a Market Disruption Event occurs or is continuing for any of the Underlyer Indices, the Observation Date will be postponed for the affected Underlyer Index only as described above under "Adjustments — Market Disruption Events — Single Index".

Multiple Underlyer Indices and Observation Dates — Common Exchange Business Day and Common Market Disruption Event

Where the notes are linked to two or more indices (such indices being "**Underlyer Indices**" and each an "**Underlyer Index**") (e.g., an Asian Absolute Performance note or a Digital note) and the final terms specify that "Common Market Disruption Events" is Applicable, the following provisions shall apply:

- if a scheduled Observation Date is not an exchange Business Day with respect to any of the Underlyer Indices and no Market Disruption Event occurs or is continuing, the Observation Date will be postponed to the next day that is an Exchange Business Day for all Underlyer Indices;

- if a scheduled Observation Date is an Exchange Business Day for all Underlyer Indices but a Market Disruption Event occurs or is continuing for any of the Underlyer Indices, the observation Date will be postponed for all Underlyer Indices as described above under "Adjustments — Market Disruption Events — Single Index"; provided that if the Observation Date is postponed to the last possible date, for each Underlyer Index other than an affected Index as of such date, the relevant Reference Index Level shall be determined by reference to the Reference Price published by the Underlyer Sponsor on such last possible date.

Averaging Observation Dates — Postponement

In respect of each Average Date and Initial Average Date (an "**Averaging Observation Date**"), if the final terms specify that "Averaging Postponement" is "Postponement", the following provisions shall apply:

- if a scheduled Averaging Observation Date is an exchange Business Day with respect to one or more of the Underlyer Indices and no Market Disruption Event occurs or is continuing in respect of such Underlyer Indices, the Observation Date will be such scheduled Averaging Observation Date for all such Underlyer Indices;

- if a scheduled Averaging Observation Date is not an exchange Business Day with respect to any of the Underlyer Indices and no Market Disruption Event occurs or is continuing, the Observation Date will be postponed to the next day that is an Exchange Business Day for the affected Underlyer Indices only;

- where the final terms specify that

- "Common Market Disruption Events" is Not Applicable, if a scheduled Observation Date is an Exchange Business Day for all Underlyer Indices but a Market Disruption Event occurs or is continuing for any of the Underlyer Indices, the Observation Date will be postponed for the affected Underlyer Index only as described above under "Adjustments — Market Disruption Events — Single Index";

- "Common Market Disruption Events" is Applicable if a scheduled Observation Date is an Exchange Business Day for all Underlyer Indices but a Market Disruption Event occurs or is continuing for any of the Underlyer Indices, the observation Date will be postponed for all Underlyer Indices as described above under "Adjustments — Market Disruption Events — Single Index"; provided that if the Observation Date is postponed to the last possible date, for each Underlyer Index other than an affected Index as of such date, the relevant Reference Index Level shall be determined by reference to the Reference Price published by the Underlyer Sponsor on such last possible date.

For the avoidance of doubt, an Averaging Observation Date determined in accordance with this section in respect of a scheduled Averaging Observation Date may fall on the same day that another Averaging Observation Date in respect of a different scheduled Observation Reference Date falls, whether or not such latter Averaging Observation Date was also determined in accordance with this provision.

Averaging Observation Dates — Modified Postponement

In respect of each Average Date and Initial Average Date (an "**Averaging Observation Date**"), if the final terms specify that "Averaging Postponement" is "Modified Postponement", each Averaging Observation Date will be postponed as described under "— *Averaging Observation Dates — Postponement*" above, *provided however*, that if an Averaging Observation Date would otherwise be postponed to a day on which another Averaging Reference Date is or is deemed to have occurred, then such Averaging Observation Date will be further postponed to the next following day that is both an Exchange Business Day with respect to the relevant Index and a day on which no Market Disruption Event occurs or is continuing with respect to the relevant Index and on which another Averaging Reference Date does not or is not deemed to occur, *provided however* that in no event will any Observation Date with respect to a stock Index be postponed by more than the Maximum Days of Postponement (as specified in the final terms) after the scheduled date for that Observation Date.

Discontinuance of Publication of a Stock Index

If the Underlyer Sponsor of an Index discontinues publication of such Index and the Underlyer Sponsor or anyone else publishes a substitute Index that the calculation agent determines is comparable to such Index, then the calculation agent will determine the amount payable by reference to that substitute Index. We refer to any substitute index approved by the calculation agent as a successor index.

If the calculation agent determines that the publication of an Index has been discontinued and there is no successor index, or that the level of an Index is not available on any Observation Date because of a Market Disruption Event or for any other reason, or if for any other reason an Index is not available to us or the calculation agent on any relevant date, including our inability to use an Index for the purposes of performing the calculations required in connection with the note because such Index is not licensed for such purpose, the calculation agent will determine the amount payable using, in lieu of a published level for that Index, the level for that Index as at that Observation Date as determined by the calculation agent in accordance with the formula for and method of calculating that Index last in effect prior to the change, failure or cancellation, but using only those securities that comprised that Index immediately prior to that event.

If the calculation agent determines that an index, the components comprising an Index or the method of calculating an Index is changed at any time in any respect — including, but not limited to, by adding, deleting, substituting, reweighing or rebalancing any of the index components, and whether the change is made by the Underlyer Sponsor under its existing policies or following a modification of those policies, is due to the publication of a successor index, is due to events affecting one or more of the index components or their issuers or is due to any other reason — then the calculation agent may but shall not

be required to determine the amount payable using, in lieu of a published level for that Index, the level for that Index as at that Observation Date as determined by the calculation agent in accordance with the formula for and method of calculating that Index last in effect prior to the change, failure or cancellation, but using only those securities that comprised that Index immediately prior to that event or to make such other adjustments as it believes are appropriate to determine that the amount payable on a payment date including at maturity is equitable. All determinations and adjustments to be made by the calculation agent with respect to an index (or component) may be made by the calculation agent in its sole discretion. The calculation agent is not obligated to make any such adjustments.

Currencies and Foreign Currency Exchange Rates

Publication Fixing Day

An Exchange Business Day with respect to a foreign exchange rate is a day on which either (1) an entity responsible for setting the official exchange rate, a spot exchange rate or other specified exchange rate publishes such rate or (2) transactions in the official exchange rate, spot exchange rate or other specified exchange rate are occurring in the global foreign exchange spot markets and foreign exchange markets are settling payments in the specified principal financial centers of the relevant currencies, and, in each case, a Market Disruption Event with respect to a foreign currency exchange rate has not occurred or is not continuing.

Market Disruption Events

A Market Disruption Event with respect to a foreign currency exchange rate will be deemed to have occurred if an event has occurred or is continuing which makes it impossible for the calculation agent to obtain such relevant official exchange rate, spot exchange rate or other specified exchange rate.

Adjustments

Non-Publication Fixing Days

If any Observation Date with respect to a foreign currency exchange rate falls on a day that is not an Publication Fixing Day, the relevant Observation Date with respect to such rate will be postponed to the next following Publication Fixing Day. However, in no event will any Observation Date with respect to a Foreign Exchange Rate be postponed by more than the Maximum Days of Postponement (as specified in the final terms) after the scheduled date for that Observation Date. If an Observation Date immediately preceding the stated Maturity Date or any Payment Date for the relevant note is postponed, the stated Maturity Date or Payment Date will be postponed by the same number of Business Day(s) from and excluding the originally scheduled Observation Date to and including the actual Observation Date, subject to a maximum of the Maximum Days of Postponement (as specified in the final terms); provided, however, that if the rescheduled Observation Date is more than five Business Days prior to the stated Maturity Date or Payment Date, then such stated Maturity Date or Payment Date shall not be postponed in the event that an Observation Date has been postponed to the last date possible and such postponed date is not an Publication Fixing Day, the calculation agent shall determine the relevant official exchange rate, spot exchange rate or other specified exchange rate in a commercially reasonable manner in its sole discretion.

Hedging in Connection with Issuance of Indexed Notes

In anticipation of the sale of indexed notes, we and/or our affiliates may enter into hedging transactions involving purchases of instruments linked to the relevant underlyer(s) on the trade date. In addition, from time to time after we issue the offered notes, we and/or our affiliates may enter into additional hedging transactions and unwind those hedging transactions we have entered into, in connection with such notes and perhaps in connection with other notes we issue, some of which may have returns linked to the relevant underlyer(s) or, if the underlyer is an index, all or a portion of the index components. Consequently, with regard to indexed notes, from time to time, we and/or our affiliates:

- expect to acquire and dispose of positions in listed or over-the-counter options, futures, swaps or other instruments linked to the relevant underlyer(s) or, if the underlyer is an index, all or a portion of the index components,
- if the underlyer is an index, may take or dispose of positions in the securities of the issuers of securities included in such indices,
- if the underlyer is an index, may take or dispose of positions in listed or over-the-counter options or other instruments based on indices designed to track the performance of relevant equity markets or components of such markets, and/or
- may take short positions in any of the underlyers.

We and/or our affiliates may acquire long or short positions in securities similar to the offered notes from time to time and may, in our or their sole discretion, hold or resell those securities.

In the future, we and/or our affiliates would expect to close out any hedge positions relating to your note and perhaps hedge positions relating to the underlyer(s) and, if the underlyer is an index, other notes with returns linked to the index components. Those steps are likely to involve sales and/or purchases of listed or over-the-counter options, futures or other instruments linked to the underlyer(s) or, if the underlyer is an index, perhaps to some or all of the index components. If the underlyer is an index, they may also involve sales and/or purchases of some or all of the index components as well as listed or over-the-counter options, futures or other instruments linked to the index.

The hedging activity discussed above may adversely affect the market price of your note from time to time and the supplemental payment amount, if any, we will pay on your note. See "Risk Factors — Considerations Relating to Indexed Notes — Trading and Other Transactions by Us in Instruments Linked to an Underlyer or the Components of an Underlyer May Impair the Market Price of an Indexed Note" and "Risk Factors — Considerations Relating to Indexed Notes — Our Business Activities May Create Conflicts of Interest Between You and Us" for a discussion of these adverse effects.

Change in Interest Rate Note Provisions

If "Change in Interest Rate Note Provisions" is specified in your final terms as being applicable, then this paragraph shall apply. Your final terms will include a table in the row entitled "Change in Interest Rate Note Provisions" which sets for the method by which the interest payable on your notes is determined for each interest period. Different methods of determining the interest payable on your notes, which may include fixed rate, floating rate and indexed note provisions, will apply to different interest periods.

Redemption and Repayment

Redemption at Maturity

Unless previously redeemed, or purchased and cancelled as specified below, the notes will be redeemed by the Issuer by payment of the Amount Payable At Maturity (Final Redemption Amount) on the Maturity Date. In determining the Amount Payable At Maturity on your note, if your final terms specify the "Calculation Basis" to be "Per Denomination", then the amount payable at maturity will be calculated on a per denomination basis and if your final terms specify the "Calculation Basis" to be "Notional", then the amount payable at maturity will be calculated on the basis of the outstanding face amount of your notes.

Notes other than Indexed (Participation) Notes and UDI-Linked Notes

If the Amount Payable at Maturity (Final Redemption Amount) row indicates both "Indexed (Participation) Notes" and "UDI-Linked Notes" is Not Applicable, then your final terms will specify a fixed percentage which will be 100% if the notes are redeemable at par, or may be some other fixed multiple of the face amount of your notes (greater than 100%) that will be payable on the maturity date.

UDI-Linked Notes

If the Amount Payable at Maturity (Final Redemption Amount) row indicates "UDI-Linked Notes" is Applicable, then the Amount Payable at Maturity (Final Redemption Amount) payable in respect of the notes shall be equal to an amount in MXN equal to the *product of* (1) the UDI-Linked Notional Amount *times* (2) the UDI Index Level on the Observation Date *times* (3) a fixed percentage which may be 100%, or may be some other fixed multiple of the face amount of your notes (greater than 100%); *provided that* if such amount is less than the face amount of your notes, and your final terms specify the "UDI-Linked Floor" to be "100% of the Face Amount", the Amount Payable at Maturity (Final Redemption Amount) shall be an amount in MXN equal to 100% of the face amount of your notes.

Defined terms used in this sub-section "— UDI-Linked Notes":

Observation Date: means the number of Business Days prior to the Stated Maturity Date specified in the applicable final terms.

Index: means Unidades de Inversión (UDI) or any successor or replacement index.

Index Sponsor(s): means Banco de Mexico or any successor Index Sponsor.

Initial Index Level: means an amount specified as such in the applicable final terms.

UDI-Linked Notional Amount: means the face amount of the note, as specified in the applicable final terms, *divided* by the Initial Index Level, rounded as specified in your final terms.

UDI Index Level: means the official value of the Index, a MXN equivalent unit of account indexed to inflation on a daily basis, as measured by the change in the Mexican National Consumer Price Index (Indice Nacional de Precios al Consumidor) pursuant to the Decree approved by the Congress of Mexico and published in the Official Daily of the Federation on April 1, 1995, as amended from time to time, for purposes of determining the inflation-adjusted value of MXN and published by the index sponsor on its website http://www.banxico.org.mx/ (or any successor or replacement website); provided, however, that, if for any reason the UDI Index Level is not determined and published by the Index Sponsor for the Observation Date or, if applicable, an Interest Determination Date, or if UDI is replaced by another inflationindexed unit of account that is reported, sanctioned, recognized, published, announced or adopted (or other similar action) by the relevant governmental authority and such event makes the inflation-indexed replacement unit of account impossible to obtain, the calculation agent will determine the UDI Index Level, or its replacement as the case may be, for the relevant date in its sole discretion acting in good faith and a commercially reasonable manner.

Indexed (Participation) Notes

If (i) the Amount Payable at Maturity (Final Redemption Amount) row indicates "Indexed (Participation) Notes" is applicable and (ii) either (a) "Maturity Lock-In" is indicated as not applicable or (b) "Maturity Lock-In" is indicated as applicable, but the Lock-In Condition (as defined under "Indexed Notes—Interest Rate Formulae—Digital" above) has not been satisfied, then the Amount Payable at Maturity (Final Redemption Amount) payable in respect of the notes shall be the Participation Amount, determined in accordance with the provisions below.

If your final terms indicate "Capped Participation" is applicable and "FX Participation" is not applicable the Participation Amount shall be an amount in the Specified Currency calculated in accordance with the formula below:

$$N \times \{Max[Floor; Min[Cap; 100 + (P \times \text{Performance})]\}$$

If your final terms indicate "Capped Participation" and "FX Participation" are not applicable the Participation Amount shall be an amount in the Specified Currency calculated in accordance with the formula below:

$$N \times \{Max[Floor; 100 + (P \times \text{Performance})]\}$$

If your final terms indicate "Capped Participation" and "FX Participation" are applicable the Participation Amount shall be an amount in the Specified Currency calculated in accordance with the formula below:

$$N \times \{Max[Floor; Min[Cap; 100 + (P \times \text{Performance} \times \text{FXR})]]\}$$

If your final terms indicate "Capped Participation" is not applicable and "FX Participation" is applicable the Participation Amount shall be an amount in the Specified Currency calculated in accordance with the formula below:

$$N \times \{Max[Floor; 100 + (P \times \text{Performance} \times \text{FXR})]\}$$

If your final terms indicate "Maturity Lock-In" is applicable, and the Lock-In Condition has been satisfied, then the Amount Payable at Maturity (Final Redemption Amount) payable in respect of the notes shall be the greater of the Participation Amount and the Lock-In Amount.

Defined terms used above:

Base Currency means the currency specified as such in the relevant final terms.

Cap means (i) an amount as specified in the relevant final terms or (ii) an amount determined by reference to market conditions by the calculation agent in its sole and absolute discretion on or after the Trade Date and, if specified in the relevant final terms, is expected to be such amount as specified in the relevant final terms but shall not be more than any maximum amount and/or less than any minimum amount, in each case, as may be specified in the relevant final terms.

Fixing Price Sponsor means the entity specified as such in the relevant final terms, or its successor or replacement, as determined by the calculation agent, that is responsible for setting the FX (Initial) and FX (Final), and in each case, if not specified, the corporation or other entity that, as determined by the calculation agent, is responsible for setting the relevant rate.

Floor means (i) an amount or amounts as specified in the relevant final terms, or (ii) an amount or amounts determined by reference to market conditions by the calculation agent in its sole and absolute discretion on or after the Trade Date and, if specified in the relevant final terms, is expected to be such amount as specified in the relevant final terms but shall not be more than any maximum amount and/or less than any minimum amount, in each case, as may be specified in the relevant final terms, in each case of (i) and (ii), which amounts may be contingent on the Reference Price (Final). In no circumstance will the Floor be less than 90%.

FXR means

- if the final terms specify "Non-Inverse Return", an amount calculated by the calculation agent equal to:

$$Max\{\text{FXR Floor}; Min[\text{FXR Cap}\{\frac{\text{FX(Final)}}{\text{FX(Initial)}})]\}$$

- if the final terms specify "Inverse Return", an amount calculated by the calculation agent equal to:

$$Max\{\text{FXR Floor}; Min[\text{FXR Cap}; (\frac{\text{FX (Initial)}}{\text{FX (Final)}})]\}$$

FXR Cap means (i) an amount as specified in the relevant final terms or (ii) an amount determined by reference to market conditions by the calculation agent in its sole and absolute discretion on or after the Trade Date and, if specified in the relevant final terms, is expected to be such amount as specified in the relevant final terms but shall not be more than any maximum amount and/or less than any minimum amount, in each case, as may be specified in the relevant final terms.

FXR Floor means (i) an amount or amounts as specified in the relevant final terms, or (ii) an amount determined by reference to market conditions by the calculation agent in its sole and absolute discretion on or after the Trade Date and, if specified in the relevant final terms, is expected to be such amount as specified in the relevant final terms but shall not be more than any maximum amount and/or less than any minimum amount, in each case, as may be specified in the relevant final terms. In no circumstance will the FXR Floor be less than 90%.

FX Price Source means the display page(s) or price source(s) specified as such in the relevant final terms, or if the relevant rate is not published or announced by such FX Price Source at the relevant time, the successor or alternative price source, display page or publication for the relevant rate as determined by the calculation agent acting in its sole discretion.

FX Rate means the Specified Rate of the Base Currency/Reference Currency exchange rate, expressed as an amount of the Reference Currency per unit of the Base Currency.

FX Valuation Date (Final) means

- if "Averaging" is specified in the relevant final terms as Applicable, the Last Averaging Date, after all adjustments to such date are made in accordance with the definition of "Averaging Dates", provided that such date will be further adjusted as described under "— Currencies and Foreign Currency Exchange Rates — Adjustments".

- if "Averaging" is specified in the relevant final terms as Not Applicable, the Valuation Date, after all adjustments to such date are made in accordance with the definition of "Valuation Date", provided that such date will be further adjusted as described under "—Currencies and Foreign Currency Exchange Rates — Adjustments".

FX Valuation Date (Initial) means

- if "Averaging" is specified in the relevant final terms as Applicable, the Last Initial Averaging Date, after all adjustments to such date are made in accordance with the definition of "Averaging Dates", provided that such date will be further adjusted as described under "— Currencies and Foreign Currency Exchange Rates — Adjustments".

- if "Averaging" is specified in the relevant final terms as Not Applicable, the Initial Valuation Date, after all adjustments to such date are made in accordance with the definition of "Valuation Date", provided that such date will be further adjusted as described under "— Currencies and Foreign Currency Exchange Rates — Adjustments".

FX (Final) means the FX Rate, as reported or published by the Fixing Price Sponsor at or around the Valuation Time on the FX Valuation Date (Final), as published on the FX Price Source for such day, determined by the calculation agent in its sole discretion.

FX (Initial) means

- if the relevant final terms specifies an amount (expressed as an amount of the Reference Currency per unit of the Base Currency), such amount

- if the relevant final terms specifies "the Specified Rate", the Specified Rate of the Base Currency/Reference Currency exchange rate, expressed as an amount of the Reference Currency per unit of the Base Currency, as reported or published by the Fixing Price Sponsor at or around the Valuation Time on the FX Valuation Date (Initial), as published

on the FX Price Source for such day, determined by the calculation agent in its sole discretion.

Last Averaging Date means the Averaging Date corresponding to the Maturity Date for the Index scheduled to fall on the date specified as the "Last Averaging Date" in your final terms.

Last Initial Averaging Date means the Initial Averaging Date for the Index scheduled to fall on the date specified as the "Last Initial Averaging Date" in your final terms.

Lock-In Amount A fixed percentage, specified in the relevant final terms, which will be 100% if the notes are redeemable at par, or may be some other fixed multiple of the face amount of your notes (greater than 100%) that will be payable on the maturity date.

"***Max***" followed by a series of amounts inside brackets, means whichever is the greater of the amounts separated by a semi-colon inside those brackets. For example, "*Max*(x;y)" means the greater of component x and component y.

"***Min***" followed by a series of amounts inside brackets, means whichever is the lesser of the amounts separated by a semi-colon inside those brackets. For example, "*Min*(x;y)" means the lesser of component x and component y.

N or **Nominal Amount** means an amount specified as such in the relevant final terms.

P or **Participation** means (i) an amount or amounts as specified in the relevant final terms, or (ii) an amount or amounts determined by reference to market conditions by the calculation agent in its sole and absolute discretion on or after the Trade Date and, if specified in the relevant final terms, is expected to be such amount as specified in the relevant final terms but shall not be more than any maximum amount and/or less than any minimum amount, in each case, as may be specified in the relevant final terms, in each case of (i) and (ii), which amounts may be contingent on the Reference Price (Final).

Performance means an amount equal to the Index Performance *minus* the Strike.

Reference Currency means the currency specified as such in the relevant final terms.

Specified Rate means the official fixing rate, official mid closing rate, spot rate, mid rate, fixing rate, as specified in the relevant final terms.

Strike means an amount specified as such in the relevant final terms.

Valuation Time means each time in the place specified as such in the relevant final terms (or such other time when the relevant rate of the FX Rate is published, as determined by the calculation agent).

Redemption at the Option of The Goldman Sachs Group, Inc.

We will not be entitled to redeem your note before its stated maturity date unless your final terms specify "Additional Redemption Rights at the Option of the Issuer" to be applicable, except in the event of certain developments involving a change in law (including a change in tax law), an original primary rate event or in connection with the imposition of United States withholding taxes for which we have agreed to pay additional amounts, as described in this subsection under "— Redemption Upon Change in Law," "— Redemption Upon an Original Primary Rate Event," and "— Redemption Upon Obligation to Pay Additional Amounts" below. If your final terms specify "Additional Redemption Rights at the Option of the Issuer" to be applicable, they will also specify one or more "Issuer's Redemption Date(s)", and one or more "Issuer's Redemption Amount(s)". For the avoidance of doubt, if a range of dates is specified in your final terms as the "Issuer's Redemption Date(s)", each day within such range, including the initial and final dates of such range, shall be an Issuer's Redemption Date. The following paragraphs of this subsection apply only if the applicable final terms specify "Additional Redemption Rights at the Option of the Issuer" to be applicable.

Your note will be redeemable at our option, in whole or in part, on Issuer's Redemption Date(s). If we redeem your note, we will do so at the Issuer's Redemption Amount(s) specified in the applicable final

terms. The Issuer's Redemption Amount(s) may be either (i) the Make Whole Redemption Amount (as defined below) or (ii) a percentage of the face amount of your note *plus* interest accrued but unpaid to the applicable Issuer's Redemption Date. For the avoidance of doubt, if the applicable Issuer's Redemption Date is an interest payment date, the holder will receive only the applicable Issuer's Redemption Amount on such Issuer's Redemption Date and there will be no double payment of accrued interest on the notes. If different prices are specified for different Issuer's Redemption Dates, the price we pay will be the price that applies to the Issuer's Redemption Date on which your note is redeemed in accordance with the applicable rules of Euroclear and Clearstream, Luxembourg. In the case of a partial redemption of the notes of any issuance, such partial redemption will be reflected in the records of Euroclear and Clearstream, Luxembourg as either a pool factor or a reduction in nominal amount, at their discretion in accordance with the applicable rules of Euroclear and Clearstream, Luxembourg.

"**Make-Whole Redemption Amount**" means an amount equal to the sum of:

(a) 100 per cent. of the face amount of the notes to be redeemed, *plus*

(b) the excess, if any, of (i) the then current values of the remaining scheduled payments of principal and interest, up to but not including the stated maturity date (or, if earlier, to the "Par Call Redemption Date" specified in the applicable final terms), discounted to the applicable Issuer Redemption Date on the Make-Whole Calculation Basis specified in the applicable final terms (based on the relevant Make-Whole Day Count Fraction specified in the applicable final terms) at a discount rate equal to the Reference Dealer Rate *plus* the Redemption Margin specified in the applicable final terms, in each case as determined by the Make-Whole Calculation Agent over (ii) 100 per cent. of the face amount of the notes to be redeemed.

If we exercise an option to redeem any note, we will give to the holder written notice (the "Issuer's Redemption Notice") of the principal amount of the note to be redeemed, no fewer than the number of days or Business Days specified in your final terms as the "Issuer's Redemption Notice Period," which shall in no case be fewer than five (5) Business Days, before the applicable Issuer's Redemption Date. We will give the notice in the manner described under "— Notices" below. In addition, if required, we will notify the Luxembourg Stock Exchange of any redemption.

We or our affiliates may purchase notes from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Notes that we or they purchase may, at our discretion, be held, resold or cancelled.

Defined terms used above:

"**Make-Whole Calculation Agent**" means a leading investment, merchant or commercial bank appointed by the Issuer for the purposes of calculating the Make-Whole Redemption Amount, and notified to the holder in the applicable Issuer's Redemption Notice.

"**Reference Dealers**" means five (or, in the circumstances set out in the definition of "Reference Security" below, three or four) credit institutions or financial services institutions that regularly deal in bonds and other debt securities as selected by the Make-Whole Calculation Agent after consultation with the Issuer.

"**Reference Dealer Rate**" means, with respect to the Issuer Redemption Date, the average of the five quotations of the mid-market annual yield to maturity of the Reference Security at the Quotation Time as specified in the applicable final terms on the third business day in the Quotation Jurisdiction as specified in the relevant final terms preceding the applicable Issuer's Redemption Date provided in writing to the Make-Whole Calculation Agent by the five Reference Dealers.

"**Reference Security**" means (a) any Reference Bond specified in the applicable final terms or (b) if no Reference Bond has been specified in the applicable final terms or if, at the Quotation Time on the third business day in the Quotation Jurisdiction as specified in the relevant final terms preceding the

applicable Issuer's Redemption Date, the Reference Bond is no longer outstanding, such other central bank or government security that, in the majority opinion of three Reference Dealers (one of whom shall be the Make-Whole Calculation Agent) (i) has a maturity comparable to the remaining term of the note (or, if earlier, to the maturity at the Par Call Redemption Date specified in the applicable final terms) and (ii) would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the note (or, if earlier, to the maturity at the Par Call Redemption Date specified in the applicable final terms). In the event that each such Reference Dealer selects a different central bank or government security, the Make-Whole Calculation Agent after consultation with the Issuer shall approach a fourth Reference Dealer and, from the three different central bank or government securities selected by the other Reference Dealers, such fourth Reference Dealer shall select as the Reference Security the central bank or government security which, in its opinion (i) has a maturity comparable to the remaining term of the Notes (or, if earlier, to the maturity at the Par Call Redemption Date specified in the applicable final terms) and (ii) would be utilised, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Notes (or, if earlier, to the maturity at the Par Call Redemption Date specified in the applicable final terms). The central bank or government security so selected by the fourth Reference Dealer shall then be the Reference Security.

Repayment at the Holder's Option

You will not be entitled to require us to buy your note from you before its stated maturity, unless your final terms specify "Repayment at the Holder's Option" to be applicable. If your final terms specify "Repayment at the Holder's Option" to be applicable, they will also specify one or more "Holder's Redemption Date(s)", and one or more "Holder's Redemption Amount(s)", which will be an amount equal to a percentage of the face amount of your note *plus* interest accrued but unpaid to the applicable Holder's Redemption Date. The following paragraphs of this subsection apply only if your final terms specify "Repayment at the Holder's Option" to be applicable.

Your note will be repayable at the holder's option on the specified Holder's Redemption Date at a percentage of the face amount of your note *plus* interest accrued but unpaid to the applicable Holder's Redemption Date. For the avoidance of doubt, if the applicable Holder's Redemption Date is an interest payment date, the holder will receive only the applicable Holder's Redemption Amount on such Holder's Redemption Date and there will be no double payment of accrued interest on the notes.

If a holder of a note wishes to exercise its option to redeem any note, the holder will need to deliver notice to a paying agent of The Goldman Sachs Group, Inc., at least 30 days but not more than 45 days before the repayment date. Exercise of the repayment option by the holder of a note will be irrevocable. The holder of a note may not exercise the repayment option for less than the entire principal amount of its note.

If a note represented by a global note is subject to repayment at the holder's option, the depositary or its nominee, as the holder, will be the only person that can exercise the right of repayment. Any indirect owners who own beneficial interests in the global note and wish to exercise a repayment right must give proper and timely instructions to their banks or brokers through which they hold their interests, requesting that they notify the depositary to exercise the repayment right on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depositary before the applicable deadline for exercise.

Street name and other indirect owners should contact their banks or brokers for information about how to exercise a repayment right in a timely manner.

Redemption Upon Change in Law

The following paragraphs of this subsection apply only if your final terms specify "Redemption Upon Change in Law" to be applicable.

We may redeem, as a whole but not in part, any outstanding issuance of notes, if, at any time on or after the settlement date, a change in law has occurred with respect to such issuance, as described under "Description of the Program — Features Common to All Notes — Change in Law".

If we exercise the option to redeem, we will give to the holders of notes, not less than 30 nor more than 60 days' notice before the specified redemption date (unless otherwise required by law). In addition, if required, we will notify the Luxembourg Stock Exchange of any redemption. The amount payable to the holders upon such redemption will be the Non-Scheduled Early Repayment Amount, which will be calculated as described under "— Non-Scheduled Early Repayment Amount" below. In the event of a change in law due to illegality, we will pay the Non-Scheduled Early Repayment Amount only to the extent permitted by applicable law.

We must deliver to the fiscal agent a certificate affirming that we are entitled to exercise the right of redemption and setting forth in reasonable detail a statement of facts showing that the conditions precedent to the right to redeem the notes have occurred.

Redemption Upon Obligation to Pay Additional Amounts

The following redemption provisions will apply to the notes if the relevant final terms specify "Gross-up and Call in the Case of Tax Law Changes" to be applicable.

We may redeem, as a whole but not in part, any outstanding notes of an issuance, if, as a result of certain changes in the laws or regulations of any U.S. taxing authority, at any time on or after the settlement date or such date as specified in the applicable final terms, we are obligated to pay, on the next succeeding interest payment date or maturity date, additional amounts, as described under "— Payment of Additional Amounts" below, and that obligation cannot be avoided by the use of reasonable measures available to us. If we exercise the option to redeem, we will give to the holders of notes to be redeemed, not less than 30 nor more than 60 days' notice before the specified redemption date. In addition, if required, we will notify the Luxembourg Stock Exchange of any redemption. The amount payable to the holders upon such redemption will be the Non-Scheduled Early Repayment Amount, which will be calculated as described under "— Non-Scheduled Early Repayment Amount" below.

The obligation to pay additional amounts must remain in effect at the time we give notice of redemption, and that notice of redemption must be given no earlier than 90 days before the date on which we would be obligated to pay additional amounts, if a payment in respect of the notes were then due. In addition, we must deliver to the fiscal agent a certificate affirming that we are entitled to exercise the right of redemption and setting forth in reasonable detail a statement of facts showing that the conditions precedent to the right to redeem the notes have occurred.

Redemption Upon an Original Primary Rate Event

If, following the occurrence of an original primary rate event:

(1) the calculation agent determines that it cannot identify a replacement primary rate or determine an adjustment spread on or before the Cut-off date;

(2) it (A) is or would be unlawful at any time under any applicable law or regulation; or (B) would contravene any applicable licensing requirements, for the calculation agent to perform the actions prescribed in "Effect of Original Primary Rate Event on Certain Floating Rate Notes" (or it would be unlawful or would contravene those licensing requirements were a determination to be made at such time);

(3) the calculation agent determines that an adjustment spread is or would be a benchmark, index or other price source whose production, publication, methodology or governance would subject either the Issuer or the calculation agent to material additional regulatory obligations (such as the obligations for administrators under the Benchmark Regulation) which it is unwilling to undertake; or

(4) the calculation agent determines that having identified a replacement primary rate and determined an adjustment spread on or before the cut-off date, the adjustments provided for in "Effect of Original Primary Rate Event on Certain Floating Rate Notes" would not achieve a commercially reasonable result for either the Issuer, calculation agent or the holders,

then the Issuer may redeem the notes on such day as shall be notified to the holders in accordance with the notice provisions set forth above in "Redemption at the Option of the Goldman Sachs Group, Inc." The amount payable to the holders upon such redemption will be the Non-Scheduled Early Repayment Amount, which will be calculated as described under "— Non-Scheduled Early Repayment Amount" below.

"**Cut-off date**" means, in respect of an original primary rate and:

(1) an original primary rate cessation, the later of (a) the date that falls the number of business days specified in the relevant final terms (or, if not so specified, the 30th business day following the occurrence of such original primary rate cessation, and (b) the first day on which the original primary rate is no longer available following such original primary rate cessation; or

(2) an administrator/benchmark event, the later of (a) the date that falls the number of business days specified in the relevant final terms (or, if not so specified, 30th business day following the occurrence of such administrator/benchmark event, and (b) the administrator/benchmark event date.

Non-Scheduled Early Repayment Amount

If we redeem notes prior to the stated maturity date following a change in law or an original primary rate event or upon becoming obliged to pay additional amounts, or if the maturity of the notes is accelerated following an event of default, the amount payable to the holders upon such redemption or acceleration will be the Non-Scheduled Early Repayment Amount. In determining the Non-Scheduled Early Repayment Amount on your note, if your final terms specify the "Calculation Basis" to be "Per Denomination", then the Non-Scheduled Early Repayment Amount will be calculated on a per denomination basis and if your final terms specify the "Calculation Basis" to be "Notional", then the Non-Scheduled Early Repayment Amount will be calculated on the basis of the outstanding face amount of your notes. The Non-Scheduled Early Repayment Amount will be calculated as follows:

- If "**Par Plus Accrued**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount equal to 100% of the principal of the notes *plus* accrued but unpaid interest to the date of redemption or acceleration.

- If "**Accreted Value**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount equal to 100% of the accreted value (as defined above under "— Interest Rates — Fixed Rate Notes") as of the date of redemption or acceleration *plus*, if applicable, accrued but unpaid interest to the date of redemption or acceleration.

- If "**UDI-Linked Accreted Value**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount in MXN equal to the UDI-Linked Accreted Value (as defined below) as of the date of redemption or acceleration; *provided that* if such amount is less than the face amount of your notes, and your final terms specify the "UDI-Linked Floor" to be "100% of the Face Amount", the Non-Scheduled Early Repayment Amount shall be an amount in MXN equal to 100% of the face amount of your notes.

- If "**UDI-Linked Amount**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount equal to the UDI-Linked Notional Amount *times* the UDI Index Level (each as defined under "– Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" above) as of the date of redemption or acceleration; *provided*

that if such amount is less than the face amount of your notes, and your final terms specify the "UDI-Linked Floor" to be "100% of the Face Amount", the Non-Scheduled Early Repayment Amount shall be an amount in MXN equal to 100% of the face amount of your notes.

- If "**UDI-Linked Par Plus Accrued**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", an amount equal to the UDI-Linked Notional Amount *times* the UDI Index Level (each as defined under "– Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" above) as of the date of redemption or acceleration *plus* accrued but unpaid interest to the date of redemption or acceleration determined on such amount; *provided that* if such amount is less than the face amount of your notes, and your final terms specify the "UDI-Linked Floor" to be "100% of the Face Amount", the Non-Scheduled Early Repayment Amount shall be an amount in MXN equal to 100% of the face amount of your notes.

- If "**Fair Market Value**" is specified in the applicable final terms as the "Non-Scheduled Early Repayment Amount", then:

    - In case of a redemption following a change in law or upon becoming obliged to pay additional amounts, an amount equal to the fair market value of the notes on the second Business Day prior to the date of redemption, determined by the calculation agent by reference to such factors as the calculation agent considers to be appropriate, including, without limitation (a) market prices or values for the underlyer or underlyers and other relevant economic variables (such as interest rates and, if applicable, exchange rates) at the relevant time taking into account the bid or offer prices of the underlyer or underlyers (as relevant); (b) the remaining term of the notes had they remained outstanding to the stated maturity date and/or any optional early redemption date; (c) if applicable, accrued interest to the date of redemption; and (d) internal pricing models of the Issuer and its affiliates. The calculation agent may, in its reasonable discretion, adjust the Fair Market Value to account for any reasonable expenses and costs of (or benefit to) the Issuer and/or its affiliates relating to the early redemption of the notes, including those relating to the unwinding of any underlying and/or related hedging arrangements and the hypothetical cost (or benefit) of replacing the amount of the funding provided by the notes at a reasonably equivalent maturity and ranking, in each case as determined by the calculation agent in its reasonable discretion.

    - In case of acceleration of the maturity of the notes following an event of default, an amount equal to the fair market value of the notes as of the date of acceleration, determined by the calculation agent by reference to such factors as the calculation agent considers to be appropriate, including, without limitation (a) market prices or values for the underlyer or underlyers and other relevant economic variables (such as interest rates and, if applicable, exchange rates) at the relevant time taking into account the bid or offer prices of the underlyer or underlyers (as relevant); (b) the remaining term of the notes had they remained outstanding to the stated maturity date and/or any optional early redemption date; (c) if applicable, accrued interest to the date of acceleration; and (d) internal pricing models of the Issuer and its affiliates. In calculating the Fair Market Value, the calculation agent shall assume that the Issuer is a Qualified Financial Institution (as defined below) or, if the calculation agent determines that no Qualified Financial Institution exists, the calculation agent shall assume the Issuer is an Eligible Financial Institution (as defined below) with the highest rating of all Eligible Financial Institutions in respect of outstanding debt obligations with a stated maturity of one year or less from the date of issue, such rating assigned by Standard & Poor's Ratings Group or any successor, or if such entity no longer exists, an entity selected by the calculation agent in its reasonable discretion.

Defined terms used above:

"**UDI-Linked Accreted Value**" means, for any given date, an amount in MXN, determined by the calculation agent, equal to the *product* of (A) the face amount of the note, as specified in the applicable final terms, times (B) (i) the *sum* of (x) 1, *plus* (y) the *product* of (a) the Implied ZC Rate *times* (b) the *quotient* of 182 *divided* by 360, and such sum *raised to the power* of (ii) the *quotient* of the number of calendar days from and including the issue date to but excluding the date of redemption or acceleration divided by 182, *times* (C) the *quotient* of the UDI Index Level as of the date of redemption or acceleration, *divided* by the Initial Index Level. Expressed formulaically, for any given date, an amount in MXN equal to:

$$\text{Accreted Notional Amount}_t = \text{Face Amount} \times \left(1 + \text{Implied ZC Rate} \times \frac{182}{360}\right)^{\left(\frac{Date_t - IssueDate}{182}\right)} \times \frac{\text{UDI Index Level}_t}{\text{Initial Index Level}}$$

where:

Date$_t$ is the date of redemption or acceleration, if any.

Date$_t$ – Issue Date is the number of calendar days from and including the issue date to but excluding Date$_t$.

Implied ZC Rate is the rate specified as such in the relevant final terms.

Initial Index Level has the meaning set forth under "– Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" above.

UDI Index Level$_t$ is the UDI Index Level (as defined under "– Redemption and Repayment – Redemption at Maturity – UDI-Linked Notes" above) on Date$_t$.

"**Qualified Financial Institution**" means an Eligible Financial Institution, which at the time of calculation of the Non-Scheduled Early Repayment Amount has outstanding debt obligations with a stated maturity of one year or less from the date of issue and rated either: (i) A-1 or higher by Standard & Poor's Ratings Group or any successor, or any other comparable rating then used by that rating agency; or (ii) P-1 or higher by Moody's Investors Service, Inc. or any successor, or any other comparable rating then used by that rating agency.

"**Eligible Financial Institution**" means a financial institution organized under the laws of any jurisdiction in the United States of America, the United Kingdom or the European Union.

Payment of Additional Amounts

Unless required by law, we intend to make all payments on the notes without deducting U.S. withholding taxes. If we are required by law to withhold payments to non-U.S. investors, however, we will not pay additional amounts on those payments unless the applicable final terms explicitly state that the gross-up of any payments due on the notes is applicable, and we will pay additional amounts on payments that are required to be withheld only to the extent described in this subsection. The following discussion in this subsection applies only if the relevant final terms specify "Gross-up and Call in the Case of Tax Law Changes" to be applicable:

We will pay additional amounts on a note only if the beneficial owner of the notes is a United States alien. The term "United States alien" means any person who, for U.S. federal income tax purposes is:

- a nonresident alien individual;
- a foreign corporation;
- a foreign partnership one or more of the members of which, for U.S. federal income tax purposes, is a foreign corporation, a nonresident alien individual or a nonresident alien fiduciary of a foreign estate or trust; or
- a nonresident alien fiduciary of an estate or trust that is not subject to U.S. federal income tax on a net income basis on income or gain from a note.

If the beneficial owner of a note is a United States alien, we will pay all additional amounts that may be necessary so that every net payment of interest, premium, if any, or principal on that note will not be less than the amount provided for in that note. By net payment, we mean the amount we or our paying agent pays after deducting or withholding an amount for or on account of any present or future tax, assessment or other governmental charge imposed with respect to that payment by a U.S. taxing authority.

Our obligation to pay additional amounts is subject to several important exceptions, however. We will ***not*** pay additional amounts for or on account of any of the following:

- any tax, assessment or other governmental charge imposed solely because of any time there is or was a connection between the beneficial owner — or between a fiduciary, settler, beneficiary, shareholder or member of the beneficial owner, if the beneficial owner is an estate, trust, partnership or corporation — and the United States (other than the mere receipt of a payment or the ownership or holding of a note), including because the beneficial owner — or the fiduciary, settler, beneficiary, shareholder or member — at any time, for U.S. federal income tax purposes:
  - is or was a citizen or resident or is or was treated as a resident of the United States;
  - is or was present in the United States;
  - is or was engaged in a trade or business in the United States;
  - has or had a permanent establishment in the United States;
  - is or was a passive foreign investment company or a controlled foreign corporation;
  - is or was a corporation that accumulates earnings to avoid U.S. federal income tax; or
  - is or was the owner or deemed owner of ten percent or more of the total combined voting power of all classes of the stock of The Goldman Sachs Group, Inc., entitled to vote;
- any estate, inheritance, gift, sales, excise, transfer, wealth or personal property or any similar tax, assessment or other governmental charge;
- any tax, assessment or other governmental charge imposed solely because the holder or any other person fails to comply with any certification, identification or other reporting requirement concerning the nationality, residence, identity or connection with the United States of the holder or beneficial owner of such note, if compliance is required by statute or by regulation of the U.S. Treasury Department or by an applicable income tax treaty to which the United States is a party, as a precondition to exemption from such tax, assessment or other governmental charge;
- any tax, assessment or other governmental charge which is payable otherwise than by deduction or withholding from payments of principal of, premium, if any, or interest on such notes;
- any tax, assessment or other governmental charge imposed solely because the payment is to be made by a particular paying agent (including The Goldman Sachs Group, Inc.) and would not be imposed if made by another paying agent;
- any tax, assessment or other governmental charge imposed solely because the holder (1) is a bank purchasing the note in the ordinary course of its lending business or (2) is a bank that is neither (A) buying the note for investment purposes only nor (B) buying the note for resale to a third party that either is not a bank or holding the note for investment purposes only;

- any tax, assessment or other governmental charge imposed under Section 871(m) of the Code, and any current or future regulations or official interpretations thereof; or

- any combination of the taxes, assessments or other governmental charges described above.

In addition, any amounts to be paid on the notes will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the Code, any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

In addition, we will not pay additional amounts with respect to any payment of principal, premium, if any, or interest to any United States alien who is a fiduciary or a partnership, or who is not the sole beneficial owner of the payment, to the extent that we would not have to pay additional amounts to any beneficiary or settlor of the fiduciary or any member of the partnership, or to any beneficial owner of the payment, if that person or entity were treated as the beneficial owner of the note for this purposes.

When we refer to a "U.S. taxing authority" in this subsection and "— Redemption and Repayment — Redemption Upon Obligation to Pay Additional Amounts" above, we mean the United States of America or any state, other jurisdiction or taxing authority in the United States. When we refer to the "United States", we mean the United States of America, including the states and the District of Columbia, together with the territories, possessions and all those areas subject to the jurisdiction of the United States of America.

When we refer to any payment of interest or principal on a note, this includes any additional amount that may be payable as described above in respect of that payment.

Mergers and Similar Transactions

We are generally permitted to merge or consolidate with another corporation or other entity. We are also permitted to sell our assets substantially as an entirety to another corporation or other entity. With regard to your note, however, we may not take any of these actions unless all of the following conditions are met:

- if the successor entity in the transaction is not The Goldman Sachs Group, Inc., the successor entity must be organized as a corporation, partnership or trust and must expressly assume our obligations under the notes and the fiscal agency agreement with respect to that series. The successor entity may be organized under the laws of any jurisdiction, whether in the United States or elsewhere; and

- immediately after the transaction, no covenant breach or default under the notes of that issuance has occurred and is continuing. For this purpose, "covenant breach or default under the notes of that issuance" means a covenant breach or an event of default with respect to that issuance or any event that would be a covenant breach or event of default with respect to that issuance if the requirements for giving us notice of such breach or default and for such breach or default having to continue for a specific period of time were disregarded.

If the conditions described above are satisfied, we will not need to obtain the approval of the holders of the notes in order to merge or consolidate or to sell our assets. Also, these conditions will apply only if we wish to merge or consolidate with another entity or sell our assets substantially as an entirety to another entity. We will not need to satisfy these conditions if we enter into other types of transactions, including any transaction in which we acquire the stock or assets of another entity, any transaction that involves a change of control of The Goldman Sachs Group, Inc. but in which we do not merge or consolidate and any transaction in which we sell less than substantially all our assets. For the avoidance of doubt, a violation of these conditions, when applicable, will not constitute an Event of Default.

Also, if we merge, consolidate or sell our assets substantially as an entirety and the successor is a non-U.S. entity, neither we nor any successor would have any obligation to compensate you for any resulting adverse tax consequences relating to the notes.

Notwithstanding the foregoing and for the avoidance of doubt, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that the assets of The Goldman Sachs Group, Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries.

Defeasance and Covenant Defeasance

Full Defeasance

The provisions for full defeasance will apply to any fixed rate note, the principal of (and premium, if any) and interest on which is payable in U.S. dollars, so long as the note does not include the provisions discussed under "— Payment of Additional Amounts" above.

If there is a change in applicable U.S. federal tax law, as described below, we can legally release ourselves from all payment and other obligations on any notes. This is called full defeasance. For us to do so, each of the following must occur:

- we must deposit in trust for the benefit of all holders of those notes a combination of money and/or U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on those notes on their various due dates or, if we choose, on redemption;

- such deposit must be held in a non-interest bearing segregated trust account designated as a special deposit account pursuant to a written agreement, to be governed by the laws of the State of New York, between us and the defeasance trustee whereby title of such account is in the name of the defeasance trustee solely in its capacity as defeasance trustee and not in its capacity as a deposit bank;

- there must be a change in current U.S. federal tax law or an Internal Revenue Service ruling that lets us make the above deposit without causing the holders to be taxed on those notes any differently than if we do not make the deposit and just repaid those notes ourselves. Under current U.S. federal tax law, the deposit and our legal release from your note would be treated as though we took back your note and gave you your share of the cash and notes or bonds deposited in trust. In that event, you could recognize gain or loss on your note; and

- we must deliver to the fiscal agent and the defeasance trustee a legal opinion of our counsel confirming the tax law change described above.

Any right we have to redeem any notes will survive full defeasance with respect to those notes.

If we ever fully defeased your note, you would have to rely solely on the trust deposit for payments of your note. You would not be able to look to us for payment in the event of any shortfall.

Covenant Defeasance

The provisions for covenant defeasance will apply to any fixed rate note, the principal of (and premium, if any) and interest on which is payable in U.S. dollars.

Under current U.S. federal tax law, we can make the same type of deposit described in this subsection under "— Full Defeasance" above and be released from our obligations described under "— Mergers and Similar Transactions" above and any other covenants relating to your note that may be described in your final terms. This is called covenant defeasance. In that event, you would lose the

protection of those restrictive covenants. In order to achieve covenant defeasance for any notes, we must do both of the following:

- we must deposit in trust for the benefit of the holders of those notes a combination of money and/or U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on those notes on their various due dates or, if we choose, on redemption;

- such deposit must be held in a non-interest bearing segregated trust account designated as a special deposit account pursuant to a written agreement, to be governed by the laws of the State of New York, between us and the defeasance trustee whereby title of such account is in the name of the defeasance trustee solely in its capacity as defeasance trustee and not in its capacity as a deposit bank; and

- we must deliver to the fiscal agent and the defeasance trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing the holders to be taxed on those notes any differently than if we do not make the deposit and just repaid those notes ourselves.

Any right we have to redeem the notes will survive covenant defeasance with respect to those notes.

If we accomplish covenant defeasance on your note, you can still look to us for repayment of your note in the event of any shortfall in the trust deposit. You should note, however, that if one of the remaining events of default occurred, such as our bankruptcy, and your note became immediately due and payable, there may be a shortfall. Depending on the event causing the default, you may not be able to obtain payment of the shortfall.

Events of Default and Remedies

Events of Default

When we refer to an event of default with respect to any issuance of notes, we mean any of the following:

- we do not pay the principal or any premium on any such notes within 30 days after the due date;

- we do not pay interest on any such notes within 30 days after the due date; or

- we file for bankruptcy or other events of bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc. occur. Those events must arise under U.S. federal or state law, unless we merge, consolidate or sell our assets as described under “General Note Conditions —Mergers and Similar Transactions” above and the successor firm is a non-U.S. entity. If that happens, then those events must arise under U.S. federal or state law or the law of the jurisdiction in which the successor firm is legally organized.

No other defaults under or breaches of the notes will result in an event of default, whether after notice, the passage of time or otherwise. However, certain events may give rise to a covenant breach, as described below under “— Covenant Breaches and Related Remedy”.

Covenant Breaches and Related Remedy

When we refer to a covenant breach with respect to the notes, we mean that we are in breach of any covenant we make with respect to the notes. You may bring a lawsuit or other formal action against us for a covenant breach only if we remain in covenant breach more than 60 days after we receive a notice of such breach sent by the holders of at least 10% in principal amount of the notes then outstanding stating that we are in breach and requiring us to remedy the breach.

For the avoidance of doubt, a covenant breach shall not be an event of default with respect to any note.

Remedies

If an event of default occurs and is continuing (the default not having been cured or waived as provided under "— Meetings, Modification and Waiver of Covenants" below), the holder of an affected note may, at its option, by written notice to us and the fiscal agent, declare the principal amount of its note to be immediately due and payable. If the event of default occurs because of events in bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc., the principal amount of the notes of that series will be automatically accelerated, without any action by the fiscal agent or any holder.

For the purpose of determining whether the holders of each of our notes are entitled to take any action under the fiscal agency agreement, we will treat the outstanding face amount of each such note as the outstanding principal amount of that note. Although the terms of each note may differ from those of the other notes of the same series, holders of specified percentages in principal amount of all notes of each such series will be able to take action affecting all notes of such series. This action may involve changing some of the terms that apply to the notes of the relevant series, accelerating the stated maturity date of the notes of the relevant series after a default or waiving some of our obligations under the fiscal agency agreement. These matters are discussed below under "— Events of Default and Remedies" and "— Meetings, Modification and Waiver of Covenants".

Amount Payable on Default

If an event of default occurs and the maturity of a note is accelerated, we will pay the applicable Non-Scheduled Early Repayment Amount, calculated as described above under "— Redemption and Repayment — Non-Scheduled Early Repayment Amount".

Meetings, Modification and Waiver of Covenants

The fiscal agency agreement contains provisions for convening meetings of the holders of notes to consider matters affecting their interests. There are three types of changes which we can make to either the fiscal agency agreement or any issuance of notes issued under that agreement.

Changes Requiring Each Holder's Approval

First, there are changes that cannot be made without the approval of each holder of the note affected by the change under the fiscal agency agreement. Here is a list of those types of changes:

- change the due date for the payment of principal of (or premium, if any) or any instalment of interest on any note;
- reduce the principal amount of any note, the portion of the principal amount which is payable upon acceleration of the maturity of the note, the interest rate or the premium payable upon redemption of the note;
- change the currency of payment in which the principal, premium or interest of any note is payable;
- change our obligation, if any, to pay additional amounts;
- shorten the period during which redemption of the notes is not permitted or permit redemption during a period when not previously permitted;
- modify our obligation to maintain required offices at which any payments on the notes are payable;

- reduce the percentage in principal amount of the notes outstanding necessary to modify, amend or supplement the fiscal agency agreement or the terms and conditions of the notes or to waive any past default or future compliance; or

- reduce the percentage of aggregate principal amount of the notes outstanding required for the adoption of a resolution or the quorum required at any meeting of holders of notes at which a resolution is adopted.

For the avoidance of doubt, we may make any change to a note where we have the consent of the holder of the note affected by the change and any such consent given by the holder will be binding on any successor holder of such note.

Changes Not Requiring Approval

The second type of change does not require any approval by holders of the notes of an affected issuance. This type of change is limited to the following:

- for the purpose of adding to our covenants for the benefit of any holders of any notes;

- for the purpose of surrendering any right or power conferred upon us in any notes;

- for the purpose of evidencing the succession of another person or entity to us and the assumption by any such successor of our covenants and obligations in any notes or the fiscal agency agreement;

- for the purpose of curing any ambiguity in, or of curing, correcting or supplementing any defective provision of, any note or the fiscal agency agreement; or

- for the purpose of amending any note or the fiscal agency agreement in any other manner which we and the fiscal agent may determine, provided that such amendment shall not be inconsistent with the notes of such series and shall not adversely affect the interest of any holder of any note of such series in any material respect.

We may also make changes or obtain waivers that do not adversely affect a particular issuance of notes, even if they affect other issuances of notes. In those cases, we do not need to obtain the approval of the holder of the unaffected notes; we need only obtain any required approvals from the holders of affected notes.

Changes Requiring the Approval of 66 2/3% of the Holders

Any other change to a particular issuance of notes would require the consent of at least 66 2/3% in aggregate principal amount of the affected notes at the time outstanding or the adoption of a resolution at a meeting of holders of the affected notes at which a quorum is present by 66 2/3% in aggregate principal amount of the affected notes then outstanding represented at such meeting. The same approval of 66 2/3% in aggregate principal amount of the affected notes then outstanding would be required for us to obtain a waiver of an event of default (including an event which is, or after lapse of time would become, an event of default), any of our covenants where we make promises about merging, which we describe under "—Mergers and Similar Transactions" above, and any other covenants in the fiscal agency agreement or final terms.

Special Rules for Action by Holders

When holders take any action under the notes or the fiscal agency agreement, such as giving a notice of default or of covenant breach, declaring an acceleration, or approving any change or waiver, we will apply the following rules.

Only Outstanding Notes Are Eligible

Only holders of outstanding notes of the applicable issuance will be eligible to participate in any action by holders of notes of that issuance. Also, we will count only outstanding notes in determining whether the various percentage requirements for taking action have been met. For these purposes, a note will not be "outstanding":

- if it has been surrendered for cancellation;
- if it is being held by the fiscal agent for re-issuance but has not yet been re-issued;
- if notes in lieu of or for substitution of the original notes have been authenticated and delivered;
- if we have deposited or set aside, in trust for its holder, money for its payment or redemption;
- if we have fully defeased it as described under "— Defeasance and Covenant Defeasance — Full Defeasance" above; or
- if we or one of our affiliates, such as Goldman Sachs International, is the owner.

Meetings and other Actions

The quorum at any meeting called to adopt a resolution with respect to an issuance of notes will be persons holding or representing a majority in aggregate principal amount of that issuance of notes outstanding at the time and, at any reconvened meeting adjourned for lack of a quorum, 25% of the aggregate principal amount outstanding of that issuance of notes. For purposes of determining whether holders of the aggregate principal amount of notes required for any action or vote, or for any quorum, have taken such action or vote, or constitute such quorum, the principal amount of any particular note may differ from its principal amount at stated maturity but will not exceed its stated face amount upon original issuance, in each case if and as indicated in your final terms. Holders may be entitled to make, take or give certain requests, demands, authorizations, directions, notices, consents, waivers or other action, or to vote on certain actions, authorized or permitted by the fiscal agency agreement with respect to the notes in accordance with the applicable procedures of the clearing systems and in accordance with such other reasonable procedures as we and the fiscal agent may agree.

Determining Record Dates for Action by Holders

We will be entitled to set any day as a record date for determining which holders or beneficial owners of notes in global form will be entitled to make, take or give certain requests, demands, authorizations, directions, notices, consents, waivers or other action, or to vote on certain actions, authorized or permitted by the fiscal agency agreement with respect to the notes. In addition, record dates for any note in global form may be set in accordance with procedures established by the relevant common depositary or common safekeeper, as applicable, from time to time. Accordingly, record dates for notes in global form may differ from those for other notes.

Payment Mechanics for Notes

Who Receives Payment?

Interest will be payable to the person in whose name a registered note is registered at the close of business on the regular record date for the relevant interest payment date. However, interest payable at maturity but on a day that is not an interest payment date will be payable to the person to whom principal is payable. The first payment of interest on any registered note originally issued after a regular record date and before the next interest payment date will be made on the interest payment date following the next regular record date to the person in whose name the note is registered at the close of business on such next succeeding regular record date. The "regular record date" with respect to any global note will be the first business day prior to each interest payment date (as such payment date may be adjusted in accordance

with the business day convention) unless otherwise specified in the applicable final terms under "Regular Record Dates", and the "regular record date" with respect to any non-global registered rate note will be the date 15 calendar days prior to each interest payment date, whether or not such date is a business day.

How We Will Make Payments

Payments of principal of (and premium, if any) and interest on all notes will be made in the applicable specified currency at the offices and agencies described below. If the exchange rate agent determines, in respect of any payment of principal (and premium, if any) or interest on a note, that the applicable specified currency has been lawfully eliminated, converted, redenominated or exchanged for a successor currency, then such payment will be made in such successor currency in effect in the relevant country on the relevant payment date. Any calculations under the floating rate notes shall be adjusted accordingly by the calculation agent, acting in its sole discretion. In addition, payments of principal of (and premium, if any) and interest on notes denominated in a currency other than U.S. dollars, however, will nevertheless be made in U.S. dollars at our option in the case of imposition of exchange controls or other circumstances beyond our control as described in this subsection under "— When the Specified Currency Is Not Available" below. In the case of an indexed note, the amount of principal payable on such note may be determined by reference to an underlying asset, such as an index or other measure described in the applicable final terms.

Payment on Global Notes

We will make payments on a global note in accordance with the applicable policies of each of Euroclear and Clearstream, Luxembourg or some other depositary or common safekeeper, as applicable, as in effect from time to time. Under those policies, we will pay directly to Euroclear and Clearstream, Luxembourg, and not to any indirect owners who own beneficial interests in the global note. An indirect owner's right to receive those payments will be governed by the rules and practices of Euroclear and Clearstream, Luxembourg and their participants, as described under "— Form, Exchange, Registration and Transfer" below.

Payment on Registered Notes

We will make payments on a note in registered non-global form as follows. We will pay interest that is due on an interest payment date to the holder at his or her address shown on the register for such notes as of the close of business on the regular record date. We will make all other payments by check or via wire transfer at the corporate trust office of the fiscal agent in the Borough of Manhattan, New York City and at the office of the paying agent, against surrender of the note.

When the Specified Currency Is Not Available

If we are obligated to make any payment in a specified currency other than U.S. dollars and the specified currency or any successor currency is not available to us due to circumstances beyond our control — such as the imposition of exchange controls or a disruption in the currency markets — we will be entitled to satisfy our obligation to make the payment in that specified currency by making the payment in U.S. dollars, on the basis of the exchange rate determined by the exchange rate agent described below, in its discretion.

The foregoing will apply to any note, whether in global or non-global form, and to any payment, including a payment at maturity. Any payments made under the circumstances and in a manner described above will not result in a default under any note.

In addition, if your final terms specify "Postponement Following FX Disruption Event and Payments in USD" to be applicable, the following paragraph will apply to your notes. We will be entitled to postpone any payment date and satisfy our payment obligations as described below. If an FX disruption event has occurred and is continuing with respect to any payment date, such payment date shall be postponed until the earlier of (A) the second business day following the day on which such FX disruption event ceases to exist and (B) the second business day following the FX disruption event cut-off date. If an FX disruption event is continuing with respect to the FX disruption event cut-off date of such payment date as so

postponed, we may determine that the USD shall be the settlement currency for all amounts payable on such payment date as postponed, using the USD/specified currency exchange rate, as determined by the calculation agent by requesting each of the reference dealers to provide a firm quotation of the rate (expressed as an amount of USD/specified currency) at which the calculation agent is able to buy the relevant amount of USD for the amount of specified currency payable on such payment date as postponed, based upon each reference dealer's experience in the foreign exchange market for the specified currency and the general activity in such market on the FX disruption event cut-off date. If at least two quotations are provided, the relevant rate will be the arithmetic mean of such quotations. If fewer than two quotations are provided, the calculation agent may request each of the major banks (as selected by the calculation agent) in the relevant market to provide a quotation of the rate (expressed as an amount of USD/specified currency) at which the calculation agent is able to buy the relevant amount of USD for the amount of specified currency payable on such payment date as postponed. If fewer than two quotations are provided, then the calculation agent shall determine the USD/specified currency exchange rate on such day in its discretion, acting in good faith and in a commercially reasonable manner. No amount of interest shall be payable in respect of the delay in payment of any amount due to the postponement of any payment date due to the occurrence of an FX disruption event.

The foregoing paragraph (if applicable) will apply to any note, whether in global or non-global form, and to any payment, including a payment at maturity. Any payments made under the circumstances and in a manner described above will not result in a default under any note.

Defined terms used above:

The term "***FX disruption event***" means the determination by the calculation agent, in its sole discretion, that it is not possible or practicable for the Issuer to pay any amount in the specified currency payable in respect of the notes on any payment date due to illiquidity, inconvertibility or non-transferability of the specified currency or due to the Issuer's inability to obtain sufficient amount of the specified currency in a timely manner due to the exchange controls and restrictions applicable to the specified currency or any other event beyond the control of the Issuer.

The term "***FX disruption event cut-off date***" means the date which is fifteen (15) business days after the originally scheduled payment date or such other period if specified in your final terms.

The term "***reference dealers***" means four leading dealers in the relevant foreign exchange market, as determined by the calculation agent.

The term "***specified currency***" means the currency specified as such in the relevant final terms.

Exchange Rate Agent

If we issue a note in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent. Unless otherwise specified in the applicable final terms, the exchange rate agent will initially be Goldman Sachs International. We may select Goldman Sachs International or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the notes without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be in its sole discretion unless we state in the applicable final terms that any determination requires our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

Payment When Offices Are Closed

If any payment is due on a note on a day that is not a business day, we will make the payment on the next day that is a business day. Payments postponed to the next business day in this situation will be treated under the applicable note as if they were made on the due date. Postponement of this kind will not result in a default under any note, and no interest will accrue on the postponed amount from the due date

to the next day that is a business day. The term business day has a special meaning which we describe under "— Features Common to All Notes — Business Days" above.

The Paying Agent

We have initially appointed as paying agent The Bank of New York Mellon, London Branch. We may at any time terminate the appointment of any paying agent and appoint additional or other paying agents. However, we will maintain a paying agent for payment of principal of (and premium, if any) and interest on the notes in one or more European cities, until all outstanding notes have been delivered to the fiscal agent for cancellation, or monies sufficient to pay the principal of (and premium, if any) and interest on all outstanding notes have been made available for payment and either paid or returned to us as provided in the notes. For so long as any notes are listed on the Official List of the Luxembourg Stock Exchange and the rules of the Luxembourg Stock Exchange shall so require, one of those paying agents will be in Luxembourg. Notice of any such termination or appointment and of any changes in the office through which any paying agent will act will be given as described under "— Notices" below.

Unclaimed Payments

All money paid by us to a paying agent that remains unclaimed at the end of two years after the amount is due and payable (whether it be principal (and premium, if any) or interest) to a holder will be paid to us. After that two-year period, the holder may look only to us for payment and not to the fiscal agent, any other paying agent or anyone else.

Form, Exchange, Registration and Transfer

Registered Notes

We will issue notes as global notes in registered form. If the notes are stated in the applicable final terms to be issued under NSS and that they are intended to be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations, then the notes will be registered in the name of a nominee for a common safekeeper for Euroclear and Clearstream, Luxembourg and we will deliver these notes to a common safekeeper for Euroclear and Clearstream, Luxembourg. Delivering the notes to a common safekeeper does not necessarily mean that the notes will be recognized as eligible collateral for Eurosystem monetary policy and intra-day credit operations by the Eurosystem either upon issue or at any time or all times during their life.

Global notes in registered form which are not issued under NSS will be deposited with, and registered in the name of a nominee of, a common depositary for Euroclear and Clearstream, Luxembourg or other clearing system as specified in the applicable final terms.

Investors may hold book-entry interests in a global note through organizations that participate, directly or indirectly, in the Euroclear and Clearstream, Luxembourg systems. Book-entry interests in the registered notes and all transfers relating to the registered notes will be reflected in the book-entry records of Euroclear and Clearstream, Luxembourg. The initial common depositary for Euroclear and Clearstream, Luxembourg will be The Bank of New York Mellon, London Branch. The Depository Trust Company will not be the depositary for the notes.

The distribution of the registered notes will be cleared through Euroclear and Clearstream, Luxembourg. Any secondary market trading of book-entry interests in the registered notes will take place through Euroclear and Clearstream, Luxembourg participants and will settle in same-day funds.

Euroclear and Clearstream, Luxembourg have established electronic securities and payment transfer, processing, depositary and custodial links among themselves and others, either directly or through custodians and depositaries. These links allow securities to be issued, held and transferred among the clearing systems without the physical transfer of certificates. Special procedures to facilitate clearance and settlement have been established among these clearing systems to trade securities across borders in the secondary market.

The policies of Euroclear and Clearstream, Luxembourg will govern payments, transfers, exchanges, setting of record dates and other matters relating to the investor's interest in securities held by them. We have no responsibility for any aspect of the records kept by Euroclear and Clearstream, Luxembourg or any of their direct or indirect participants. We also do not supervise these systems in any way.

Euroclear and Clearstream, Luxembourg and their participants perform these clearance and settlement functions under agreements they have made with one another or with their customers. You should be aware that they are not obligated to perform or continue to perform these procedures and may modify or discontinue them at any time.

Except as provided below, owners of beneficial interests in the registered notes will not be entitled to have the notes registered in their names, will not be entitled to receive physical delivery of the notes in definitive form and will not be considered the owners or holders of the registered notes under the fiscal agency agreement governing the notes. Accordingly, each person owning a beneficial interest in a registered note must rely on the procedures of the depositary and, if such person is not a participant, on the procedures of the participant through which such person owns its interest, in order to exercise any rights of a holder of notes.

Any note we issue may be represented by a master global note.

Certificated Notes

We will issue notes to you or your nominees, in fully certificated registered form, only if (1) we advise the fiscal agent in writing that both Euroclear and Clearstream, Luxembourg are no longer willing or able to discharge their responsibilities properly, and the fiscal agent or we are unable to locate qualified successors within 60 days; (2) an event of default with respect to the notes has occurred and is continuing under the notes; or (3) we, at our option, elect to terminate the book-entry system. If any of the three above events occurs, we will reissue the notes (as authenticated by the fiscal agent) in fully certificated, registered form and will recognize the registered holders of the certificated notes as holders under the fiscal agent agreement.

In the event individual certificates for the notes are issued, the holders of such notes will be able to receive payment on the notes, effect transfers and exchanges of the notes and replace lost, stolen, destroyed or mutilated notes at the offices of the Luxembourg paying and transfer agent. We have appointed Banque Internationale à Luxembourg, *société anonyme* as paying and transfer agent in Luxembourg with respect to the notes in individual certificated form, and as long as the notes are listed on the Official List of the Luxembourg Stock Exchange and the rules of the Luxembourg Stock Exchange shall so require, we will maintain a payment and transfer agent in Luxembourg. If we add, replace or terminate a paying and transfer agent or fiscal agent, we will give notice in the manner described below.

Unless and until we issue the notes in fully certificated, registered form, (1) you will not be entitled to receive a certificate representing your interest in the notes; (2) all references in this Base Prospectus to actions by holders will refer to actions taken by the depositary, which may act upon instructions from direct participants in Euroclear or Clearstream, Luxembourg; and (3) all references in this Base Prospectus to payments and notices to holders will refer to payments and notices to the depositary, as the registered holder of the notes, which may distribute them to you in accordance with its policies and procedures.

The fiscal agent will mail notices by first class mail, postage prepaid, to each holder's last known address as it appears in the security register that the fiscal agent maintains. The fiscal agent will only mail these notices to the registered holder of the notes, unless we reissue the notes to you or your nominees in fully certificated form.

Extensions for Further Issuances

Without the consent of any holders or the fiscal agent, Goldman Sachs International or any other underwriter, dealer or agent or any other person, we may issue additional notes identical to a prior issue from time to time.

Other Exchanges

Owners of certificated registered notes will be able to exchange them for registered notes of smaller denominations or combined into notes of larger denominations, as long as the total principal amount is not changed. If any registered note is partially redeemed, the owner may similarly exchange the unredeemed portion of a note.

Each note authenticated and delivered upon any transfer or exchange of any note (whether in whole or in part) will carry the same rights to future accrued interest and to interest accrued and unpaid that was carried by the surrendered note (or part thereof).

Special Considerations for Global Securities

As an indirect owner, an investor's rights relating to a global security will be governed by the account rules of the depositary and those of the investor's financial institution or other intermediary through which it holds its interest (*e.g.*, if Euroclear or Clearstream, Luxembourg is the depositary or common safekeeper), as well as general laws relating to securities transfers. We do not recognize this type of investor or any intermediary as a holder of securities and instead deal only with the depositary or common safekeeper that holds the general security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her own name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe above;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities;
- an investor may not be able to sell interests in the securities to some insurance companies and other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's or common safekeeper's policies will govern payments, deliveries, transfers, exchanges, notices and other matters relating to an investor's interest in a global security, and those policies may change from time to time. We, the fiscal agent and any agent will have no responsibility for any aspect of the depositary's or common safekeeper's policies, actions or records of ownership interests in a global security. We, the fiscal agent and any agent also do not supervise the depositary or common safekeeper in any way;
- the depositary or common safekeeper will require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's or common safekeeper's book-entry system and through which an investor holds its interest in the global securities, directly or indirectly, may also have their own policies affecting payments, deliveries, transfers, exchanges, notices and other matters relating to the securities, and those policies may change from time to time. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the policies or actions or records of ownership interests of any of those intermediaries.

Considerations Relating to Euroclear and Clearstream, Luxembourg

Euroclear and Clearstream, Luxembourg are securities clearing systems in Europe. Both systems clear and settle securities transactions between their participants through electronic, book-entry delivery of securities against payment. In addition, Euroclear and Clearstream, Luxembourg may be depositaries for a global security.

As long as a global note is held by Euroclear and Clearstream, Luxembourg, you may hold an interest in the global note only through an organization that participates, directly or indirectly, in Euroclear or Clearstream, Luxembourg.

As noted above, payments, deliveries, transfers, exchanges, notices and other matters relating to the notes made through Euroclear and Clearstream, Luxembourg must comply with the rules and procedures of those clearing systems. Those clearing systems could change their rules and procedures at any time. We have no control over those systems or their participants and we take no responsibility for their activities.

In addition, we may provide for other securities clearing systems and other depositaries or common safekeepers in the applicable final terms.

Registration of Transfer

Holders of registered notes may present them for registration of transfer (with the form of transfer properly executed and endorsed) or exchange at the corporate trust office of the fiscal agent or at the office of any transfer agent that we designate for that purpose. Holders will not be required to pay a service charge, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange, and as described in the fiscal agency agreement. Unless we say otherwise in the applicable final terms, the transfer or exchange, and any replacement, will be made only if our fiscal agent or transfer agent, as the case may be, is satisfied with the documents of title and the identity of the person making the request. The transfer or exchange may also be subject to reasonable regulations that we may from time to time agree upon with the fiscal agent and any transfer agent.

We have initially appointed as security registrar and transfer agent, the fiscal agent acting through its corporate trust office in the Borough of Manhattan, New York City. We have also appointed the paying agent listed at the end of this Base Prospectus as a transfer agent of registered notes. If the registered notes in global form are cancelled and we issue notes in non-global form, as long as any notes are listed on the Official List of the Luxembourg Stock Exchange, holders of the non-global notes can transfer those notes at the offices of Banque lnternationale à Luxembourg, *société anonyme*, or its successor as our transfer agent in Luxembourg. We will name any additional initial transfer agents for any issuance of notes in the applicable final terms. We reserve the right to vary or terminate the appointment of the fiscal agent as security registrar or of any transfer agent or to appoint additional or other registrars or transfer agents or to approve any change in the office through which any registrar or any transfer agent acts. However, there will be at all times a registrar and transfer agent in the Borough of Manhattan, New York City.

If any issuance of notes is redeemable and we redeem less than all those notes, we may block the transfer or exchange of those notes during the period beginning 15 days before the day we mail the notice of redemption and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any notes selected for redemption, except that we will continue to permit transfers and exchanges of the unredeemed portion of any notes being partially redeemed.

Payment of Stamp and Other Taxes

We shall pay all stamp and other duties, if any, which may be imposed by the United States or any U.S. political subdivision or taxing authority with respect to the fiscal agency agreement or the issuance of the notes. Except as described under "— Payment of Additional Amounts" above, we will not be required to make any payment with respect to any tax, assessment or governmental charge imposed by any government or any political subdivision or taxing authority.

Notices

As long as any notes are listed on the Official List of the Luxembourg Stock Exchange and its rules require, notices to holders of notes will be given by publication in a daily newspaper of general circulation in Luxembourg, which we expect to be the *Luxemburger Wort*, or on the website of the LSE at www.luxse.com. The term "daily newspaper" means a newspaper that is published on each day, other than a Saturday, Sunday or holiday, in Luxembourg or, when applicable, elsewhere in Western Europe. A notice will be considered received on the date it is first published. If notice cannot be given as described in this paragraph because the publication of any newspaper is suspended or it is otherwise impractical to publish the notice, then notice will be given in another form. That alternate form of notice will be sufficient notice to each holder. Notices to be given to holders of notes in registered form will be sent by mail to the respective addresses of the holders as they appear in the security register and will be deemed delivered when mailed. Neither the failure to give notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Title

We, the fiscal agent and any of our agents may deem and treat the registered owner of any registered note as the absolute owner (whether or not the note is overdue and notwithstanding any notice to the contrary) for the purpose of making payment and for all other purposes.

Replacement of Notes

If your notes become mutilated, destroyed, stolen or lost, we will replace them at your expense upon the delivery to the fiscal agent or the paying agent of the mutilated notes or evidence of the loss, theft or destruction satisfactory to the fiscal agent or the paying agent and us. In the case of a lost, stolen or destroyed note, an indemnity satisfactory to the fiscal agent or the paying agent and us may be required at your expense before a replacement note will be issued, and we may require that you pay any taxes and other governmental charges payable in connection with the replacement of notes and any other expenses (including the fees and expenses of the fiscal agent) connected with the replacement.

PLAN OF DISTRIBUTION

We and Goldman Sachs International, as the agent, have entered into a distribution agreement with respect to the notes. Subject to certain conditions, the agent has agreed to use its reasonable efforts to solicit purchases of notes. We have the right to accept offers to purchase notes and may reject any proposed purchase of the notes. The agent may also reject any offer to purchase notes.

We may also sell notes to the agent who will purchase the notes as principal for its own account. In that case, the agent will purchase the notes at a price equal to the issue price specified in the applicable final terms, less a discount. The discount will equal the applicable commission on an agency sale of the notes with the same stated maturity.

The agent may resell any notes it purchases as principal to other brokers or dealers at a discount, which may include all or part of the discount the agent received from us. If all the notes are not sold at the initial offering price, the agent may change the offering price and the other selling terms.

We may also sell notes directly to investors. We will not pay commissions on notes we sell directly. In addition, we may enter into further distribution agreements with agents other than Goldman Sachs International with respect to the notes.

The notes are not, and will not be, registered under the United States Securities Act of 1933, as amended, and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. (Terms used in this paragraph have the meanings given to them by Regulation S under the Securities Act.)

The notes are a new issue of securities, and there will be no established trading market for any note before its original issue date. We have been advised by Goldman Sachs International that it intends to make a market in the notes. However, neither Goldman Sachs International nor any of our other affiliates nor any other agent named in your final terms that makes a market is obligated to do so and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for the notes.

We may use this Base Prospectus in the initial sale of any note. In addition, Goldman Sachs International or any of our other affiliates may use this Base Prospectus in a market-making transaction in any note after its initial sale. Unless we (or our agent) inform the purchaser otherwise in the confirmation of sale, this Base Prospectus is being used in a market-making transaction.

Goldman Sachs International has agreed in the distribution agreement that, with respect to all notes issued as a part of the same tranche (within the meaning of Regulation S under the Securities Act), it will not offer, sell or deliver such notes, (1) as part of their distribution at any time or (2) otherwise until 40 days after the later of (A) the completion of the distribution of such tranche of notes as determined by Goldman Sachs International and (B) the closing date of such tranche of notes (or such other date as The Goldman Sachs Group, Inc. may, in its sole discretion, deem necessary to comply with Regulation S) within the United States or to, or for the account or benefit of, U.S. persons except, in either case, in accordance with Regulation S under the Securities Act, and it will have sent to each dealer to which it sells such notes during the restricted period a confirmation or other notice describing the restrictions on offers and sales of notes within the United States or to, or for the account or benefit of, U.S. persons.

Selling Restrictions

Prohibition of Sales to EEA Retail Investors

Unless the final terms in respect of any notes specifies the “Prohibition of Sales to EEA Retail Investors” as “Not Applicable”, Goldman Sachs International has represented and agreed, and each further dealer or offeror of the notes under the program will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any notes which are the subject of the offering contemplated by this Base Prospectus as completed by the final terms in relation thereto to any retail investor in the EEA.

For purposes of this provision:

(a) the expression “retail investor” means a person who is one (or more) of the following:

(i) a retail client as defined in point (11) of Article 4(1) of MiFID II;

(ii) a customer within the meaning of the Insurance Distribution Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

(iii) not a qualified investor as defined in the Prospectus Regulation; and

(b) the expression an “offer” includes the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

If the final terms in respect of any notes specifies “Prohibition of Sales to EEA Retail Investors” as “Not Applicable”, in relation to each Member State of the EEA, Goldman Sachs International has represented and agreed, and each further dealer or offeror of the notes under the program will be required to represent and agree, that it has not made and will not make an offer of notes 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 that Member State except that it may make an offer of such Notes to the public in that Member State:

(a) if the final terms in relation to the notes specify that an offer of those notes may be made other than pursuant to Article 1(4) of the Prospectus Regulation in that Relevant State, which we refer to as a Non-exempt Offer, following the date of publication of a prospectus in relation to such notes which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, provided that any such 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 such prospectus or final terms, as applicable, and the Goldman Sachs Group, Inc. 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 Goldman Sachs International nominated by The Goldman Sachs Group, Inc. 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 of notes referred to in (b) to (d) above shall require The Goldman Sachs Group, Inc. or Goldman Sachs International 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 the foregoing, the expression an “offer of notes to the public” in relation to any notes in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

Other Selling Restrictions for Member States of the EEA

Austria

In addition to the selling restrictions described in the section headed "Prohibition of Sales to EEA Retail Investors" (in particular the restrictions/requirements stipulated by the Prospectus Regulation), the notes may be offered in Austria only in compliance with the provisions of the Austrian Capital Market Act

2019 (*Kapitalmarktgesetz 2019*, Federal Law Gazette No 62/2019, as amended, the "KMG 2019"), which may require the filing of a notification pursuant to section 24 of the KMG 2019 with the Austrian Control Bank (*Oesterreichische Kontrollbank Aktiengesellschaft*) as soon as possible, but in any event prior to the commencement of the relevant offer of the notes.

In addition, any offer and sale of the notes must be made in compliance with the provisions of the Austrian Securities Supervision Act 2018 (*Wertpapieraufsichtsgesetz 2018*, Federal Law Gazette No 107/2017, as amended) and all other applicable legislation and regulations in Austria.

Belgium

For selling restrictions in respect of Belgium, please see "Prohibition of Sales to EEA Retail Investors" above.

This Base Prospectus has not been submitted for approval to the Financial Services and Markets Authority. Accordingly, investment instruments (as defined in the law of 11 July 2018 on offerings to the public of investment instruments and the admission of investment instruments to trading on regulated markets, as amended or replaced from time to time (the "Prospectus Law")) that do not qualify as securities (as defined in the Prospectus Regulation), including notes that have a maturity of less than 12 months and qualify as money market instruments, and that therefore fall outside the scope of the Prospectus Regulation, may not be distributed in Belgium by way of an offering to the public, as defined in and subject to the exemptions set out in the Prospectus Law.

Any offeror of notes will be required to represent and agree that it will not offer for sale, sell or market notes 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.

Bulgaria

For selling restrictions in respect of Bulgaria, please see "Prohibition of Sales to EEA Retail Investors" above. Moreover,

(1) in addition to the exemptions under Article 1(4) of the Prospectus Regulation in relation to securities as defined under the Prospectus Regulation, Goldman Sachs International and each further dealer or offeror may make an offer of securities to the public in the Republic of Bulgaria without publication of a prospectus, under the following exemptions:

(i) Article 89c of the Bulgarian Public Offering of Securities Act, at any time where the total consideration of each offer of securities to the public is less than EUR 8,000,000 calculated over a period of 12 months, where admission is requested to trading on a multilateral trading facility as defined in point (22) of Article 4(1) of Directive 2014/65/EU ("MTF"), and

(ii) Article 89d of the Bulgarian Public Offering of Securities Act, at any time where the total consideration of each offer of securities to the public is less EUR 8,000,000 calculated over a period of 12 months, where admission to trading on a regulated market or an MTF is not requested, subject to the approval and publication of a document for public offering by the Bulgarian Financial Supervision Commission.

(2) no initial offering of securities which qualify as bonds or other forms of securitised debt is or will be made in the Republic of Bulgaria to more than 30 persons who are not institutional investors as listed in point (1) of Section I of Annex II to Directive 2014/65/EU, provided that:

(a) the Issuer is not a bank licensed in the Republic of Bulgaria, a bank licensed in another Member State which provides services in the Republic of Bulgaria through a branch under the freedom of establishment or directly under the freedom to provide services, a branch of a bank from a non-member state which is licensed in the Republic of Bulgaria;

(b) the issuance of securities is one of the Issuer's main activities; and

(c) the Issuer professionally grants credits or provides other financial services,

unless the offer of such securities to the public in the Republic of Bulgaria, or the admission to trading of such securities on a regulated market in Bulgaria, is sought in accordance with the Prospectus Regulation and the Bulgarian Public Offering of Securities Act.

Croatia

For selling restrictions in respect of Croatia, please see "Prohibition of Sales to EEA Retail Investors" above.

This Base Prospectus has not been approved by the Croatian Financial Services Supervisory Authority. Notes may not be offered and/or sold in Croatia on the basis of this Base Prospectus as a prospectus for purposes of offer of notes to the public unless the Base Prospectus is (i) approved by the Croatian Financial Services Supervisory Authority and published pursuant to the Prospectus Regulation and the Croatian Capital Market Act (Official Gazette No 65/2018, as may be further amended; the "Croatian Capital Market Act"), or (ii) approved by the competent authority in another EEA Member State, published and passported into Croatia in accordance with the Prospectus Regulation and the Croatian Capital Market Act. In case an offer and/or sale of notes in Croatia is made in reliance on one of the exemptions from the duty of publication of a prospectus pursuant to the Prospectus Regulation and/or Croatian Capital Market Act, such an offer and/or sale shall be notified to the Croatian Financial Services Supervisory Authority in accordance with the Croatian Capital Market Act.

In any event, any offer and sale of notes in Croatia must be made in compliance with the provisions of the Croatian Capital Market Act, relevant bylaws and all other applicable legislation and regulations in Croatia.

Czech Republic

For selling restrictions in respect of the Czech Republic, please see "Prohibition of Sales to EEA Retail Investors" above, with the following exceptions:

"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 notes.

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

This 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 notes have not been offered or sold and may not be offered, sold or delivered directly or indirectly in Denmark, unless in compliance with, as applicable, the Prospectus Regulation, the Danish Consolidated Act No. 41 of January 13, 2023 on Capital Markets and Executive Orders issued thereunder and in compliance with Executive Order No. 191 of 31 January 2022 on investor protection in connection with securities trading, issued pursuant to the Danish Consolidated Act No. 406 of March 29, 2022 on Financial Business, all as amended, supplemented or replaced from time to time.

Finland

For selling restrictions in respect of Finland, please see "Prohibition of Sales to EEA Retail Investors" above.

This Base Prospectus has not been filed with or approved by the Finnish Financial Supervisory Authority. The notes may only be marketed, offered or sold in compliance with all applicable provisions of the laws of Finland, especially the Finnish Securities Market Act (arvopaperimarkkinalaki (746/2012), as amended) and any regulations, guidelines or decisions issued thereunder, as supplemented and amended from time to time.

France

For selling restrictions in respect of France, please see "Prohibition of Sales to EEA Retail Investors" above.

Germany

For selling restrictions in respect of Germany, please see "Prohibition of Sales to EEA Retail Investors" above.

Greece

This Base Prospectus (and/or any supplement and/or final terms thereto) has not been approved by the Hellenic Capital Markets Commission for the offer, distribution and marketing of the notes in Greece. For selling restrictions in respect of Greece, please see "Prohibition of Sales to EEA Retail Investors" above, with the below specifications:

Under the Greek laws implementing the Prospectus Regulation (as amended and in force) the following are provided:

1. The publication of a prospectus is not required, according to the specific provisions of the Prospectus Regulation, in case of public offers of securities with a total consideration in the European Union lower than Euro five million (€5,000,000), calculated over a period of twelve (12) months.

2. The publication of an information circular (in accordance with the directions, circulars and decisions issued by the Hellenic Capital Market Commission) is required in connection with public offers of securities with a total consideration ranging from Euro five hundred thousand (€500,000) to five million (€5,000,000) calculated over a period of twelve (12) months. Exceptionally, the publication of the information circular is not needed provided that the conditions of Regulation (EU) 2020/1503, regarding public offers of securities from an authorized European crowdfunding service provider, are met.

This 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 notes in Greece.

Any offer or sale of notes as per the present may only be made if in compliance with all applicable requirements and provisions of the laws of Greece, as supplemented and amended from time to time, with any applicable European or international legislation and with any relevant applicable regulation or rule or instruction or guideline (including but not limited to the Hellenic Capital Market Commission's instructions, decisions and guidelines), as each time in force. Similarly, any related advertisement, notification or other declaration or announcement is subject to the abovementioned framework. Neither this 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.

Hungary

This Base Prospectus has not been approved by the *Magyar Nemzeti Bank (Hungarian National Bank)*.

In addition to any other general selling restrictions in this Base Prospectus (including, but not limited to restrictions under the heading "Prohibition of Sales to EEA Retail Investors" above), the following restrictions also apply to an offer of notes to the public in Hungary of contemplated by this Base Prospectus

as completed by the relevant final terms. The expression an “offer of notes to the public” shall have the same meaning as defined under the heading “Prohibition of Sales to EEA Retail Investors”.

Any offer of notes to the public in Hungary is authorized only if all rules specified in the laws and regulations of Hungary and the European Union (especially, but not limited to the Prospectus Regulation and Sections 13 to 51 of Hungarian Act CXX of 2001 on the Capital Market Act (the "Capital Market Act"), as amended from time to time) are fully complied with and no further obligations or sanctions arise for the Issuer, The Goldman Sachs Group, Inc.

Private placement

A placement of such notes in Hungary that is

(i) neither an offer of securities to the public pursuant to the Prospectus Regulation,

(ii) nor the admission of such notes to trading on a regulated market,

qualifies as a private placement (***zártkörű forgalombahozatal)*** in Hungary.

An offer of notes to the public 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 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 (The Goldman Sachs Group, Inc.);

- in Section 18 of the Capital Market Act, that each and any written document related to the offer of notes to the public must clearly indicate that such offer is a private placement.

Additional obligations in respect of exempt offers of securities to the public

An offer of notes to the public 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 of notes to the public 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, The Goldman Sachs Group, Inc. 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).

If the offer of notes to the public in Hungary is not exempt from the obligation of the issuer to engage an appropriately licensed investment service provider under Section 23 (1) of the Capital Market Act, any offer of notes to the public is only authorized in Hungary if the Issuer, The Goldman Sachs Group, Inc. agreed and engaged an investment service provider fully in accordance with Section 23 (1) of the Capital Market Act.

Registration in a multilateral trading facility

The registration of notes which are the subject of the offering contemplated by this 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 compliance 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 "Prohibition of Sales to EEA Retail Investors", Goldman Sachs International 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 notes, or do anything in Ireland in respect of the notes, otherwise than in conformity with the provisions of:

(i) Regulation (EU) 2017/1129 (the Prospectus Regulation), Commission Delegated Regulation (EU) 2019/980 (PR Regulation), Commission Delegated Regulation (EU) 2019/989 (RTS Regulation) and Central Bank of Ireland ("Central Bank") rules issued and / or in force pursuant to Section 1363 of the Companies Act 2014 (as amended);

(ii) the Companies Act 2014 (as amended);

(iii) the European Union (Markets in Financial Securities) 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;

(iv) 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 Goldman Sachs Group, Inc. in complying with its obligations thereunder;

(v) 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; and

(vi) the PRIIPs Regulation.

Italy

The below selling restrictions shall apply unless the final terms in respect of any notes specifies the "Prohibition of Sales to EEA Retail Investors" as "Not Applicable". Please see the section "Prohibition of Sales to EEA Retail Investors" above.

In addition to the restrictions under section "Prohibition of Sales to EEA Retail Investors" above, the offering of the notes has not been registered pursuant to Italian securities legislation and, accordingly, no notes may be offered, sold or delivered, nor may copies of this Base Prospectus, of any final terms or of any other document relating to the notes be distributed in the Republic of Italy, except:

(i) to qualified investors (*investitori qualificati*), as defined under Article 2, paragraph 1, letter e), of Regulation (EU) No. 1129 of 14 June 2017 (the "Prospectus Regulation") and any applicable provision of Legislative Decree No. 58 of 24 February 1998, as amended from time to time (the "Financial Services Act") and/or Italian CONSOB regulations; or

(ii) in other circumstances which are exempted from the rules on public offerings pursuant to Article 1 of the Prospectus Regulation, Article 34-*ter* of CONSOB regulation No. 11971 of 14 May 1999, as amended from time to time (the "CONSOB Regulation No. 11971"), and in accordance with any applicable Italian laws and regulations.

Any offer, sale or delivery of the notes or distribution of copies of this Base Prospectus, any final terms or any other document relating to the notes in the Republic of Italy must be made in compliance with the section "Prohibition of Sales to EEA Retail Investors" above and/or the selling restrictions under points (i) or (ii) above and must be made:

(a) by *soggetti abilitati* (including investment firms, banks or financial intermediaries), as defined by Article 1, first paragraph, letter r), of the Financial Services Act, permitted to conduct such activities in the Republic of Italy in accordance with the relevant provisions of 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 from time to time (the "Banking Act") and any other applicable laws and regulations;

(b) in compliance with Article 129 of the Banking Act, as amended from time to time, and the implementing guidelines of the Bank of Italy issued on 25 August 2015 and amended on 10 August 2016 and on 2 November 2020, as further amended from time to time, pursuant to which the Bank of Italy may request periodic reporting, data and information on the issue or the offer of securities in the Republic of Italy; and

(c) in compliance with any other applicable laws and regulations or requirement imposed by CONSOB, the Bank of Italy and/or any other competent 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 subsequent resale of the notes on the secondary market in the Republic of Italy must be made in compliance with the public offer and the prospectus requirement rules provided under the Prospectus Regulation, as implemented by the Financial Services Act and CONSOB Regulation No. 11971. For these purposes, a public offer occurs also where the notes which are initially offered and placed in the Republic of Italy or abroad to qualified investors only but, at any time in the 12 months following such placing, are regularly ("sistematicamente") resold on the secondary market in the Republic of Italy to non-qualified investors. Where no exemption from the rules on public offerings applies, failure to comply with the prospectus requirement rules provided under the Prospectus Regulation, as implemented by Financial Services Act and CONSOB Regulation No. 11971 may result in the purchasers of the notes who are acting outside of the course of their business or profession being entitled to declare such purchase void and to claim damages from any authorized intermediary from which the notes were purchased.

Liechtenstein

For selling restrictions in respect of Liechtenstein, please see "Prohibition of Sales to EEA Retail Investors" above.

Luxembourg

For selling restrictions in respect of Luxembourg, please see "Prohibition of Sales to EEA Retail Investors" above.

Norway

For selling restrictions in respect of Norway, please see "Prohibition of Sales to EEA Retail Investors" above.

In no circumstances may an offer of notes denominated in NOK be made in the Norwegian market without the notes being registered in Verdipapirsentralen ASA (trading as Euronext Securities Oslo) in dematerialised form or in another central securities depository which is properly authorized or recognised by the Financial Supervisory Authority of Norway (Nw. Finansilsynet) as being entitled to register the notes pursuant to Regulation (EU) No 909/2014, to the extent such notes shall be registered, according to the Norwegian Central Securities Depositories Act (Nw. Verdipapirsentralloven 2019) and ancillary regulations.

Poland

In addition to provisions applicable to the "Prohibition of Sales to EEA Retail Investors" stated above, the following applies:

With respect to the offer, delivery, advertisement or sale of the notes no approval has been sought or obtained from the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*) and the offer, delivery, advertisement or sale of the notes was not notified to the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*).

Any offer, delivery, advertisement or sale of the notes or distribution of copies of this Base Prospectus, any final terms or any other document relating to the notes 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. However, according to Article 31zb of the Act on Specific Arrangements to Prevent, Counter and Combat COVID-19, Other Contagious Diseases and Emergencies Caused by Them of 2 March 2020, in the event of declaring an epidemic emergency or a state of epidemics in the territory of Poland, in the period of validity of such states and in the period of one month after their cancellation, the requirement for approval of the information memorandum by the Polish Financial Supervision Authority (*Komisja Nadzoru Finansowego*) referred to in Article 38b(1) of the Act on Public Offers does not apply.

According to Article 37b Section 3a in connection with Article 38b Section 3 of the Act on Public Offers the issuer or the offeror should notify the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego) of their intention to make an offer of securities to the public no later than seven (7) business days before the date on which the information memorandum is made available.

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 notes 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. This Base Prospectus has not been verified by the Portuguese Securities Exchange Commission (*Comissão do Mercado de Valores Mobiliários*, or the "CMVM") and the notes are not registered therewith for public offer in Portugal. The recipients of this Base Prospectus and other offering materials in respect of the notes 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 notes must not be, and are not being, offered or advertised, and no offering or marketing materials relating to the notes 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).

Romania

For selling restrictions in respect of Romania, please see "Prohibition of Sales to EEA Retail Investors" above.

The Base Prospectus has not been subject to the approval of the Romanian Financial Supervisory Authority ("ASF") or any other competent Romanian authority. Accordingly, the Issuer and each dealer has represented and agreed that it has not offered, sold or delivered, and will not offer, sell or deliver, any notes in Romania ("Romania") in a solicitation to the public, and that sales of the notes in Romania shall be effected in accordance with all Romanian securities, tax and exchange control and other applicable laws and regulations.

For the cases when a valid pass porting procedure to Romania in relation to the Base Prospectus has not been successfully enacted, the Issuer and each of the dealers has represented and agreed that it will not offer, sell or deliver any notes or distribute copies of the Base Prospectus or any other document relating to the notes in Romania except for the cases when the Base Prospectus and any related documents relating to the notes will be offered in Romania observing the following cumulative conditions:

(a) it is addressed only to investors who are "qualified investors" within the meaning of Article 2 e) of the Prospectus Regulation; and
(b) it complies with all applicable laws and regulations in Romania, including the Prospectus Regulation, the provisions of Law no. 24/2017 as regards issuers of financial instruments and market operations, the provisions of Regulation No. 5/2018 on issuers of financial instruments and market operations issued by the Romanian Financial Supervisory Authority, and any norms and decisions issued or approved by the Romanian Financial Supervisory Authority or any other competent Romanian authority, as well as any other applicable EU and Romanian legislation.

Slovakia

For selling restrictions in respect of Slovakia, please see "Prohibition of Sales to EEA Retail Investors" above, provided that "Qualified investors" for the purpose of a Slovak offering are persons specified in Article 8a paragraph 2 of Act No. 566/2001 Coll., on securities and investment services, as amended (the "Slovak Securities Act").

The notes 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, as amended and any regulation or rule made thereunder, as supplemented and amended from time to time.

Spain

Neither the notes nor the Base Prospectus have been, and they are not envisaged to be approved by, registered or filed with, or notified to the Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores).

The notes may not be listed, offered, sold or distributed, nor may any subsequent resale of notes be carried out in, Spain except in circumstances which do not require registration of a prospectus in Spain or without complying with the requirements set out in the Prospectus Regulation, 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 Decree 1310/2005, of 4 November, partially developing Law 24/1988, of 28 July on admission to trading of the notes in official secondary markets, public offerings and prospectuses (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, or any other related regulations that may be in force from time to time, as further amended, supplemented or restated. No publicity or marketing of any kind shall be made in Spain in relation to the notes.

Sweden

For selling restrictions in respect of Sweden, please see "Prohibition of Sales to EEA Retail Investors" above.

The Netherlands

For selling restrictions in respect of The Netherlands, please see "Prohibition of Sales to EEA Retail Investors" above.

Other Selling Restrictions for Non-Member States

Abu Dhabi Global Market

This Base Prospectus relates to an Exempt Offer (for the purposes of section 61(3)(a) of Financial Services and Markets Regulations 2015, as amended ("FSMR") and as defined in Rule 4.3.1(1) of the ADGM Market Rules as amended, issued for the purposes of the FSMR ("ADGM Market Rules").

This Base Prospectus is intended for distribution only to Professional Clients (as defined in Rule 4.3.1(1) of the ADGM Market Rules) who are not natural persons. It must not be delivered to, or relied on by, any other person.

Goldman Sachs International and each further dealer or offeror of the notes has represented and agreed, and each further dealer appointed under the program will be required to represent and agree, that 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 18 (Restrictions on financial promotion) of the FSMR) received by it in connection with the issue or sale of any notes to which this Base Prospectus relates, in circumstances in which section 18(1) of the FSMR does not apply to the Issuer.

Goldman Sachs International may promote the notes (or appoint a third party to promote the notes) in the ADGM only to persons falling within paragraph 4(1)(a) (i.e. Authorized Persons or Recognised Bodies, as defined in the FSMR) of schedule 2 (Exempt Communications) of FSMR and not to any other person unless it is possible to do so without breaching the restriction in section 18(1) of FSMR, and Goldman Sachs International considers it appropriate to do so in any particular case. These notes are not intended to be promoted to retail investors in the ADGM, and Goldman Sachs International will not do so. Subsequent purchasers of the notes are informed of this and must ensure (and have the sole responsibility of ensuring) that any subsequent sale of the notes by them is done in accordance with the rules administered by the ADGM Financial Services Regulatory Authority ("FSRA").

The FSRA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The FSRA has not approved this Base Prospectus nor taken steps to verify the information set out in it, and has no responsibility for it.

The notes may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the notes should conduct their own due diligence on the notes.

If you do not understand the contents of this Base Prospectus you should consult an authorized financial adviser.

Argentina

The offering of the notes has not been registered with the Argentine Securities and Exchange Commission (Comisión Nacional de Valores, hereinafter "CNV"). The CNV has neither approved nor disapproved the notes, nor has the CNV passed upon or endorsed the merits of any offering or the accuracy or adequacy of this Base Prospectus. As a result, the notes may not be publicly offered or sold within Argentina (within the meaning of Sections 2 and 82 of Argentine Capital Markets Law No. 26,831 and any rule or regulation to be issued by the CNV in the future), and, accordingly, any transaction involving the notes within Argentina must be done in a manner that does not constitute a public offering or a public distribution of the notes under Argentine laws (within the meaning of Sections 2 and 82 of Argentine Capital Markets Law No. 26,831). This Base Prospectus do not constitute an offer to sell any of the notes referred to herein to any prospective purchaser of the notes in Argentina, nor does it constitute a solicitation of any prospective purchaser of the notes in Argentina of an offer to buy any of the notes referred to herein, under circumstances in which such offer or solicitation (as applicable) would be unlawful.

Brazil

The notes may not be offered or sold to the general public in Brazil, except for professional investors or in circumstances that do not constitute a public offering or unauthorized distribution of securities in Brazil or an undue solicitation of investors under Brazilian laws and regulations. Accordingly, the notes 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 notes, as well as the information contained therein, may not be supplied to the general public in Brazil, as the offering of notes is not a public offering of securities in Brazil, nor used in connection with any offer for subscription or sale of securities to the general public in Brazil, with the exception of offerings directed to professional investors. A seller of the notes may be asked by the purchaser to comply with procedural requirements to evidence previous title to the notes 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 notes within Brazil should consult with their own counsel as to the applicability of these registration requirements or any exemption therefrom.

British Virgin Islands ("BVI")

This Base Prospectus is not an offer to sell, or a solicitation or invitation to make offers to purchase or subscribe for, the notes or any other securities or investment business services in the BVI. This Base Prospectus may not be sent or distributed to persons in the BVI and the notes are not available to, and no invitation or offer to subscribe, purchase or otherwise acquire the notes will be made to, persons in the BVI. However, the notes 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 the notes may be offered and sold as 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 notes 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 Goldman Sachs Group, Inc. The notes 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 notes may also be offered to persons located in the BVI who are "qualified investors" for the purposes of SIBA.

This 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.

Cayman Islands

Goldman Sachs International and each further dealer or offeror of the notes has represented and agreed, and each further dealer appointed under the program will be required to represent and agree, that it shall not offer and sell notes from a place of business within the Cayman Islands (including an offering from an internet or other electronic service provider located in the Cayman Islands) or in a manner constituting the establishment of a place of business or the commencement of business in the Cayman Islands unless it is appropriately registered and licensed or otherwise permitted to undertake such an offer or sale under applicable laws (including, without limitation, the Securities Investment Business Act (As Revised) of the Cayman Islands).

Goldman Sachs International and each further dealer or offeror of the notes may therefore offer and sell notes to investors registered and incorporated in the Cayman Islands without restriction on such dealer or The Goldman Sachs Group, Inc. if such dealer and The Goldman Sachs Group, Inc. is, according to applicable Cayman Islands law, not located in the Cayman Islands (as a branch, an incorporated entity, a resident or otherwise) and does not have a place of business in and/or has not commenced the carrying on of business in the Cayman Islands.

No notes may be sold by or on behalf of The Goldman Sachs Group, Inc. within the Cayman Islands if such sale would require The Goldman Sachs Group, Inc. to be registered as a foreign company under the Companies Act (As Revised) of the Cayman Islands.

None of the notes shall be sold to or offered by way of subscription to any member of the public in the Cayman Islands whether directly or indirectly.

Chile

The Goldman Sachs Group, Inc. and the notes 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 notes 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 notes pursuant to this Base Prospectus begins on the date of issuance of the relevant final terms. Any such offer of notes in Chile will be subject to General Rule N°. 336 of the CMF. Since the notes 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 notes pursuant to this Base Prospectus does not relate to registered securities, there is no obligation on The Goldman Sachs Group, Inc. to deliver in Chile public information regarding the notes. The notes 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°. 336. Therefore, the following paragraph is only a translation into Spanish of this paragraph's disclaimers and does not contain any additional statement.

Esta oferta comienza el día que se emitan los *final terms*. Esta oferta de valores se acoge a Norma de Carácter General 336 de la Comisión para el Mercado Financiero. Dado que esta oferta versa sobre valores no inscritos en el Registro de Valores Extranjeros que lleva dicha Comisión, tales valores no están sujetos a la fiscalización de ésta. Como esta oferta de valores se refiere a valores no inscritos, no existe la obligación por parte de su emisor de entregar en Chile información pública respecto de dichos valores. Estos valores no podrán ser objeto de oferta pública mientras no sean inscritos en el Registro de Valores correspondiente.

Colombia

This Base Prospectus, together with the final terms for each issue of notes, 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.

This Base Prospectus, together with the final terms for each issue of notes, has not been and will not be filed with or approved by the Colombian Financial Superintendency or any other regulatory authority in Colombia. The Issuer is not subject to the supervision of the Colombian Financial Superintendency.

The issuance of the notes, its trading and payment shall occur outside Colombia; therefore, the notes have not been and will not be registered before the Colombian National Registry of Issuers and Securities ("RNVE" by its Spanish acronym), have not been approved or otherwise reviewed by the Colombian Financial Superintendency and have not and will not be listed nor approved by the Colombian Stock Exchange or any other trading system registered and approved in Colombia. The delivery of this Base Prospectus or the final terms for each issue of notes does not constitute and is not intended to constitute a public offer of securities under the laws of Colombia. This Base Prospectus, together with the final terms for each issue of notes, 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 an undetermined number of recipients or 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 notes may not be solicited, publicly offered, transferred, sold or delivered, whether directly or indirectly, to any individual or legal entity in Colombia.

The information contained in this Base Prospectus is provided for illustrative purposes only and no representation or warranty is made as to the accuracy or completeness of the information contained herein by any Colombian authority or entity. 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 this Base Prospectus or the final terms for each issue of notes 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.

The addressee also represents that investment in foreign securities is a permitted investment for them under their corporate bylaws and/or particular investment regime that may be applicable.

Costa Rica

Any offer of notes under this Base Prospectus shall occur outside of Costa Rica, will not be registered in the National Registry of Securities and has not been approved nor registered by the General Superintendence of Securities ("SUGEVAL"). The addressee acknowledges that it has approached the seller of the notes on a reverse inquiry basis and subjects itself to the laws of the jurisdiction of the Issuer.

This offering is not a public or private 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.

Pursuant to the Regulation of Public Offering of Securities in Costa Rica, public offerings of securities made in Costa Rica must be registered before SUGEVAL while private offerings must be accredited before SUGEVAL whenever the total amount of fundraising exceeds one million dollars ($1,000,000.00 USD).

Dominican Republic

The issuance, circulation and offering of the notes 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 authorizations are required in this issuance, circulation and offering, the notes under this 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*) nor disclosure of relevant information requirements established in the aforementioned regulation shall be complied with, and notes 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.

Dubai International Financial Centre

This Base Prospectus relates to an Exempt Offer in accordance with the Markets Rules of the Dubai Financial Services Authority (the "DFSA") Rulebook as amended, issued for the purposes of DIFC Law No. 1 of 2012 ("DIFC Markets Rules").

This Base Prospectus is intended for distribution only to Professional Clients (as defined in the DIFC Markets Rules) who are not natural persons. It must not be delivered to, or relied on by, any other person.

The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this Base Prospectus nor taken steps to verify the information set out in it, and has no responsibility for it.

The notes to which this Base Prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the notes offered should conduct their own due diligence on the notes.

If you do not understand the contents of this Base Prospectus you should consult an authorized financial adviser.

El Salvador

This Base Prospectus has been provided to the recipient under the recipient's express request and instructions, and on a **private placement basis**.

Hong Kong

No advertisement, invitation or document relating to the notes 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 notes 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 notes which are not a "structured product" as defined in the SFO, the notes 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 notes 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 notes 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 notes 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 notes 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.

The Issuer does not accept any responsibility for any acts or omissions of such intermediary.

Japan

The notes 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, Goldman Sachs International and each further dealer or offeror of the notes has agreed and each further dealer to be appointed under the program will be required to agree that it will not offer or sell any notes, 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 organised 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 of the Jersey Financial Services Commission under Article 8(2) of the Control of Borrowing (Jersey) Order 1958 has been obtained for the circulation in Jersey of any offer for subscription, sale or exchange of notes 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 50.

Mexico

The notes 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, the "CNBV"*), and may not be offered or sold publicly in Mexico. The notes may be sold in Mexico, by any person, including The Goldman Sachs Group, Inc., to investors that qualify as institutional or 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*) and regulations thereunder. This Base Prospectus is not required to be reviewed, and has not been submitted for review or reviewed, by the CNBV.

Panama

The notes 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 notes 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.

Institutional investors that purchase the notes pursuant to the institutional investor exemption must hold the notes for a year and during that period may only sell these notes to other institutional investors.

Neither the notes 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 notes are not subject to the supervision of the Superintendence of Capital Markets.

Paraguay

The notes and the information contained in this Base Prospectus have not been and will not be registered with or approved by the Paraguayan Securities Exchange Commission (or *Comisión Nacional de Valores*, hereinafter "CNV"). Accordingly, the notes may not be and will not be publicly offered in or into Paraguay. The Issuer is not registered with the CNV.

Law No. 5810/2017 on Securities Market and Regulation No. 35/2023 of the CNV establish that any offer to carry out any legal action with regard to securities made to a general public or to a particular group, personally or via any means of communication, will be deemed to be a public offering of securities. Therefore, any action that would constitute a public offering of the notes or distribution of any offering materials in relation to the notes (even if it is done on a private one-on-one basis) is prohibited without previous registration with the CNV. The relevant regulation does not distinguish between activities made on-shore or off-shore. Consequently, the restrictions will apply, and licensing requirements will be triggered, whether an offering is made in or into Paraguay.

The offering of notes through this Base Prospectus does not constitute a public offering of notes or other financial products and services in Paraguay. Each purchaser of notes acknowledges that the notes and financial products to be offered under this Base Prospectus will be issued outside of Paraguay and not publicly offered in or into Paraguay. Each purchaser of notes acknowledges that any legal matter arising from any offer of notes shall not be submitted to any Paraguayan government authority. Each purchaser of notes 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 notes should make his own decision whether this offering meets his investment objectives and risk tolerance level. Each purchaser of notes understands that securities that are not registered with the CNV do not enjoy tax benefits in Paraguay, are not negotiable through the local Stock Exchange, are not covered by Paraguayan laws nor supervised by CNV.

Peru

The notes and this Base Prospectus have not been registered in Peru under the *Decreto Supremo Nº 020-2023-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 notes acquired by institutional investors in Peru cannot be transferred to a third party, unless such transfer is made to another institutional investor or the notes have been previously registered with the *Registro Público del Mercado de Valores* maintained by the *Superintendencia del Mercado de Valores*.

Saudi Arabia

No action has been or will be taken in the Kingdom of Saudi Arabia that would permit a public offering of the notes. Any investor in the Kingdom of Saudi Arabia or who is a Saudi person (a "Saudi Investor") who acquires any notes pursuant to any offering should note that the offer of notes 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 8-5-2023 dated 25/06/1444H corresponding to 18/01/2023G (the "KSA Regulations") for the purposes of Article 10 of the KSA Regulations through a capital market institution licensed by the CMA to carry on the securities activity of arranging and following a notification to the CMA under the KSA Regulations.

The notes may thus not be advertised, offered or sold to any person in the Kingdom of Saudi Arabia other than to "institutional and qualified clients" under Article 9 of the KSA Regulations or by way of a limited offer under Article 9 of the KSA Regulations. Goldman Sachs International and each further dealer or offeror of the notes has represented and agreed, and each further dealer appointed under the program will be required to represent and agree, that any offer of notes will comply with the KSA Regulations.

Each offer of notes shall not therefore constitute a "public offer" pursuant to the KSA Regulations, but is subject to the restrictions on secondary market activity under Article 14 of the KSA Regulations. Any Saudi Investor who has acquired notes pursuant to a private placement under Article 9 or Article 10 or is an Exempt offer under Article 6 of the KSA Regulations may not offer or sell those notes to any person unless the offer or sale is made through a capital market institution 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 institutional and qualified clients) and the minimum amount payable per offeree does not exceed SR 200,000 or an equivalent amount.

(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 institutional and qualified clients; 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 notes being offered or sold to the transferee has declined since the date of the original private placement, the transferor may offer or sell the notes to the transferee if their purchase price during the period of the original private placement has exceeded 200,000 Saudi Riyals or an equivalent amount. If this requirement cannot be fulfilled, a Saudi Investor may offer or sell the notes if he sells his entire holding of such notes to one person.

All the above provisions shall apply to all subsequent transferees of such notes.

Singapore

This Base Prospectus has not been registered as a prospectus with the Monetary Authority of Singapore (the "MAS") under the Securities and Futures Act 2001, as amended or modified (the "SFA").

(A) For all Notes (excluding Notes in (C)), and for all physically delivered Underlying Assets which are Securities (defined below)

This Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes or Underlying Assets which are securities or securities-based derivatives contracts (each as defined in the SFA) (the "Securities") (as the case may be) may not be circulated or distributed, nor may the notes or the Securities (as the case may be) 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 notes or Securities (as the case may be) 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 trustee of 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 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 notes or Securities (as the case may be) pursuant to an offer made under Section 275 of the SFA except:

1) 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)(c)(ii) of the SFA;

2) where no consideration is or will be given for the transfer;

3) where the transfer is by operation of law;

4) as specified in Section 276(7) of the SFA; or

5) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

(B) For Notes (other than Notes in (C)) Linked to Underlying Assets which are CIS (defined below) with physical delivery, this Selling Restriction applies in addition to the Selling Restriction in (A).

The offer or invitation of the notes and Underlying Assets which are collective investment schemes (defined in section 2(1) of the SFA) ("CIS") (as the case may be), which is the subject of this Base Prospectus, does not relate to a CIS which is authorized under Section 286 of the SFA or recognized under Section 287 of the SFA. Goldman Sachs Group, Inc. is] not authorized or recognized by the MAS and the notes and the CIS (as the case may be) are not allowed to be offered to the retail public. This 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.

This Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the CIS may not be circulated or distributed, nor may the CIS 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 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 trustee of 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 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 pursuant to an offer made under Section 305 of the SFA except:

1) 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)(c)(ii) of the SFA;

2) where no consideration is or will be given for the transfer;

3) where the transfer is by operation of law;

4) as specified in Section 305A(5) of the SFA; or

5) as specified in Regulation 36A of the Securities and Futures (Offers of Investments) (Collective Investment Schemes) Regulations 2005 of Singapore.

(C) Notes Linked to CIS where the notes provide for a right or interest (including an option) in respect of units in a CIS and physical delivery of the CIS

The offer or invitation of the notes and CIS, which is the subject of this Base Prospectus, does not relate to a collective investment scheme which is authorized under Section 286 of the SFA or recognised under Section 287 of the SFA. Goldman Sachs Group, Inc. is not authorized or recognised by the MAS and the notes and the CIS are not allowed to be offered to the retail public. This 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.

This Base Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes or CIS (as the case may be) may not be circulated or distributed, nor may the notes or CIS (as the case may be) 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 notes or CIS (as the case may be) 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 trustee of 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 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 notes or CIS pursuant to an offer made under Section 305 of the SFA except:

1) 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)(c)(ii) of the SFA;

2) where no consideration is or will be given for the transfer;

3) where the transfer is by operation of law;

4) as specified in Section 305A(5) of the SFA; or

5) as specified in Regulation 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 2001 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.

South Africa

No South African resident and/or its offshore subsidiaries may, without such person obtaining the prior written approval of the Financial Surveillance Department of the South African Reserve Bank (the "Exchange Control Authorities"), subscribe for or purchase any note or beneficially hold or own any note; provided that qualifying South African institutional investors with sufficient foreign portfolio capacity may, without the prior written approval of the Exchange Control Authorities, utilise their pre-approved prudential offshore allowances to subscribe for or purchase any notes.

Each Goldman Sachs International and each further dealer or offeror of the note has (or will have) severally represented, warranted and agreed that it (i) will not offer notes for subscription, (ii) will not solicit any offers for subscription for or sale of the notes, and (iii) will itself not sell or offer the notes in South Africa in contravention of the Companies Act, 2008 (the South African Companies Act), the Banks Act, 1990 (the South African Banks Act), the Exchange Control Regulations, 1961 (the South African Exchange Control Regulations), 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 notes under the program, each of Goldman Sachs International and each further dealer or offeror of the notes who has (or will have) agreed to place those notes will be required to severally 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 notes (whether for subscription, purchase or sale) in South Africa. This Base Prospectus does not, nor is it intended to, constitute a "*registered prospectus*" (as defined in the South African Companies Act) prepared and registered under the South African Companies Act. Information made available in this Base Prospectus should not be considered as "*advice*" as defined in the Financial Advisory and Intermediary Services Act, 2002.

Offers not deemed to be offers to the public

Offers for subscription for, or sale of, notes 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; or

(b) the total contemplated acquisition cost of notes, for any single addressee acting as principal, is equal to or greater than ZAR1,000,000 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.

Switzerland

Swiss Public Offer Selling Restrictions

Each offeror of notes represents and agrees that it has not made and will not make an offer of notes to the public in Switzerland, except that it may make an offer of such notes to the public in Switzerland:

(a) if the relevant final terms in respect of any notes specify Switzerland as a Public Offer Jurisdiction, 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) in any circumstances falling within the exemptions listed in article 36 para. 1 FinSA,

provided that no offer of notes 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.

Prohibition of Offer to Private Clients in Switzerland

Unless the relevant final terms in respect of any notes specifies the "Prohibition of Offer to Private Clients in Switzerland" to be "Not Applicable", subject to the last paragraph, each purchaser and/or offeror of the notes represents and agrees that it has not offered and will not offer any notes to any Private Client in Switzerland.

For the purposes of this provision:

1. the expression "Private Client" means a person who is not one (or more) of the following:
   (i) a professional client as defined in article 4 para. 3 FinSA (not having opted-in on the basis of article 5 para. 5 FinSA) or article 5 para. 1 FinSA; or
   (ii) an institutional client as defined in article 4 para. 4 FinSA; or
   (iii) a private client according to article 58 para. 2 FinSA.
2. the expression "offer" refers to the interpretation of such expression in article 58 FinSA.

Notwithstanding the above, in the case where the relevant final terms in respect of any notes specifies the "Prohibition of Offer to Private Clients in Switzerland" to be applicable or in the case of the next paragraph being applicable but where subsequently a key information document under article 58 FinSA (Basisinformationsblatt für Finanzinstrumente) or article 59 para. 2 FinSA in respect of the notes is published, then, following such publication, the prohibition on the offering of the notes to Private Clients in Switzerland as described above shall no longer apply.

The Bahamas

The notes 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 notes 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 notes 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. This 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. No offer or sale of any Securities of the Issuer can be made in The Bahamas unless the offer of the Securities is made by or through a firm which is registered with the Securities Commission of The Bahamas to engage in the business of dealing in securities in The Bahamas and in compliance with Bahamian Exchange Control Regulations.

United Arab Emirates (UAE)

The offering of the notes to which this Base Prospectus relates has not been approved or licensed by or registered with the UAE Central Bank, the UAE Securities and Commodities Authority (the "SCA"), the Dubai Financial Services Authority (the "DFSA"), the ADGM Financial Services Regulatory Authority (the "FSRA") or any other relevant licensing authorities in the UAE, and accordingly does not constitute an offer of securities for public subscription in the UAE in accordance with the commercial companies law, Federal Decree-Law No. 32 of 2021 (as amended), SCA Resolution No. 9 R.M. of 2016 Concerning the Regulation of Mutual Funds (as amended), SCA Resolution No. 11 R.M. of 2016 Concerning the Regulation of Offering and Issuing Shares in Public Joint-Stock Companies (as amended) or SCA Resolution No. 3 R.M. of 2017 Concerning the Organization of Promotion and Introduction (as amended) (together the "SCA Resolutions") or otherwise. Accordingly, the notes may not be offered to the public in the UAE (including the Dubai International Financial Centre or the Abu Dhabi Global Market).

The notes to be issued under this Base Prospectus have not been, and will not be, offered, sold, publicly promoted or advertised in the UAE other than in compliance with any laws applicable in the UAE governing the issue, offering and sale of the notes.

This Base Prospectus is strictly private and confidential and is being issued to a limited number of institutional and individual investors:

(a) who fall within the exceptions to SCA Resolutions and/or who qualify as Qualified Investors as defined under the SCA Resolutions;

(b) upon their request and confirmation that they understand that the notes have not been approved or licensed by or registered with the UAE Central Bank, the SCA, the DFSA, the FSRA or any other relevant licensing authorities or governmental agencies in the UAE; and

(c) must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose.

United Kingdom

Unless the final terms in respect of any notes specifies "Prohibition of Sales to UK Retail Investors" as "Not Applicable", Goldman Sachs International has represented and agreed, and each further dealer or offeror of the notes appointed under the program will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any notes which are the subject of the offering contemplated by this Base Prospectus as completed by the final terms in relation thereto to any retail investor in the UK.

For the purposes of this provision:

(a) the expression "retail investor" means a person who is one (or more) of the following:

(i) a retail client as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA;

(ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of

Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or

(iii) not a qualified investor as defined in Article 2 of the UK Prospectus Regulation; and

(b) the expression an "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

If the final terms in respect of any notes specifies "Prohibition of Sales to UK Retail Investors" as "Not Applicable", Goldman Sachs International has represented and agreed, and each further dealer or offeror of the notes appointed under the program will be required to represent and agree, that it has not made and will not make an offer of notes 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 UK except that it may make an offer of such notes to the public in the UK:

(a) at any time to any legal entity which is a qualified investor as defined in Article 2 of the UK Prospectus Regulation;

(b) 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 UK subject to obtaining the prior consent of Goldman Sachs International nominated by The Goldman Sachs Group, Inc. for any such offer; or

(c) at any time in any other circumstances falling within section 86 of the FSMA,

provided that no such offer of notes referred to in (a) to (c) above shall require The Goldman Sachs Group, Inc. or Goldman Sachs International 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 purposes of the foregoing, the expression an "offer of notes to the public" in relation to any notes means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

Goldman Sachs International has represented and agreed, and each further dealer or offeror of the notes appointed under the program will be required to represent and agree, that:

(a) in relation to any notes which have a maturity of less than one year, (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell any notes other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the notes would otherwise constitute a contravention of Section 19 of the FSMA by The Goldman Sachs Group, Inc.;

(b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any notes in circumstances in which Section 21(1) of the FSMA does not apply to The Goldman Sachs Group, Inc.; and

(c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any notes in, from or otherwise involving the UK.

Uruguay

The notes have not been registered with the Central Bank of Uruguay and will not be offered or sold in Uruguay through public offerings.

Venezuela

The notes 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 notes may be sold by means of a private offer through sales that do not constitute a public offering, as determined under Venezuelan securities laws.

In connection with the issue of any tranche of notes, Goldman Sachs International (or persons acting on its behalf) may over-allot notes (provided that, in the case of any tranche of notes to be listed on the Official List of the Luxembourg Stock Exchange, the aggregate principal amount of notes allotted does not exceed 105 per cent. of the aggregate principal amount of the relevant tranche) or effect transactions with a view to supporting the market price of the notes at a level higher than that which might otherwise prevail. However, there is no assurance that Goldman Sachs International (or persons acting on its behalf) will undertake stabilization action. Any stabilization action may begin on or after the date on which adequate public disclosure of the final terms of the offer of the relevant tranche of notes is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant tranche of notes and 60 days after the date of the allotment of the relevant tranche of notes.

Goldman Sachs International is an affiliate of The Goldman Sachs Group, Inc.

We may appoint agents, other than or in addition to Goldman Sachs International, with respect to the notes. Any agents will be named in the applicable final terms and those agents will enter into distribution agreements with substantially the same terms as the distribution agreement referred to above or such other agreements as we and such other agents may agree. The other agents may be affiliates or customers of The Goldman Sachs Group, Inc. and may engage in transactions with and perform services for The Goldman Sachs Group, Inc. in the ordinary course of business. Goldman Sachs International may resell notes to or through another of our affiliates, as selling agent.

Market-Making Resales by Affiliates

This Base Prospectus may be used by Goldman Sachs International in connection with offers and sales of the notes in market-making transactions. In a market-making transaction, Goldman Sachs International may resell a note it acquires from other holders, after the original offering and sale of the note. Resales of this kind may occur in the open market or may be privately negotiated, at prevailing market prices at the time of resale or at related or negotiated prices. In these transactions, Goldman Sachs International may act as principal or agent, including as agent for the counterparty in a transaction in which Goldman Sachs International acts as principal, or as agent for both counterparties in a transaction in which Goldman Sachs International does not act as principal. Goldman Sachs International may receive compensation in the form of discounts and commissions, including from both counterparties in some cases. Other affiliates of The Goldman Sachs Group, Inc. may also engage in transactions of this kind and may use this Base Prospectus for this purpose.

The aggregate initial offering price specified on the cover of this Base Prospectus relates to the initial offering of the notes not yet issued as of the date of this Base Prospectus. This amount does not include the notes to be sold in market-making transactions. The latter include notes to be issued after the date of this Base Prospectus, as well as notes previously issued.

The Goldman Sachs Group, Inc. does not expect to receive any proceeds from market-making transactions. Goldman Sachs International does not expect that The Goldman Sachs Group, Inc. or any other affiliate that engages in these transactions will pay any proceeds from its market-making resales to The Goldman Sachs Group, Inc.

Information about the trade and settlement dates, as well as the purchase, for a market-making transaction will be provided to the purchaser in a separate confirmation of sale.

Unless The Goldman Sachs Group, Inc. or an agent informs you in your confirmation of sale that your note is being purchased in its original offering and sale, you may assume that you are purchasing your note in a market-making transaction.

Matters Relating to Initial Offering and Market-Making Resales

Each issuance of notes will be a new issuance, and there will be no established trading market for any note prior to its original issue date. We may not list any particular issuance on a securities exchange or quotation system. We have been advised by Goldman Sachs International that it intends to make a market in the notes, and any underwriters to whom we sell notes for public offering may also make a market in those notes. However, neither Goldman Sachs International nor any underwriter that makes a market is obligated to do so, and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for any of the notes.

EMPLOYEE RETIREMENT INCOME SECURITY ACT

This section is only relevant to you if you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh plan) proposing to invest in the notes.

The U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA") and the Code, prohibit certain transactions ("prohibited transactions") involving the assets of an employee benefit plan that is subject to the fiduciary responsibility provisions of ERISA or Section 4975 of the Code (including individual retirement accounts, Keogh plans, and other plans described in Section 4975(e)(1) of the Code) (each, a "Plan") and certain persons who are "parties in interest" (within the meaning of ERISA) or "disqualified persons" (within the meaning of the Code) with respect to the Plan; governmental plans may be subject to similar prohibitions unless an exemption applies to the transaction. The assets of a Plan may include assets held in the general account of an insurance company that are deemed to be "plan assets" under ERISA or assets of certain investment vehicles in which the Plan invests.

The Goldman Sachs Group, Inc. and certain of its affiliates each may be considered a "party in interest" or a "disqualified person" with respect to many Plans, and, accordingly, prohibited transactions may arise if the notes are acquired or held by or on behalf of a Plan unless those notes are acquired and held pursuant to an available exemption. In general, available exemptions include: transactions effected on behalf of that Plan by a "qualified professional asset manager" (prohibited transaction exemption 84-14) or an "in-house asset manager" (prohibited transaction exemption 96-23), transactions involving insurance company general accounts (prohibited transaction exemption 95-60), transactions involving insurance company pooled separate accounts (prohibited transaction exemption 90-1), transactions involving bank collective investment funds (prohibited transaction exemption 91-38), and transactions with service providers under Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code where the Plan receives no less and pays no more than "adequate consideration" (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code). The person making the decision on behalf of a Plan or a governmental plan shall be deemed, on behalf of itself and the plan, by purchasing and holding the notes, or exercising any rights related thereto, to represent that (a) the plan will receive no less and pay no more than "adequate consideration" (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code) in connection with the purchase and holding of the notes, (b) none of the purchase, holding or disposition of the notes or the exercise of any rights related to the notes will result in a non-exempt prohibited transaction under ERISA or the Code (or, with respect to a governmental plan, under any similar applicable law or regulation), and (c) neither The Goldman Sachs Group, Inc. nor any of its affiliates is a "fiduciary" (within the meaning of Section 3(21) of ERISA or, with respect to a governmental plan, under any similar applicable law or regulation) with respect to the purchaser or holder in connection with such person's acquisition, disposition or holding of the notes, or as a result of any exercise by The Goldman Sachs Group, Inc. or any of its affiliates of any rights in connection with the notes, and neither The Goldman Sachs Group, Inc. nor any of its affiliates has provided investment advice in connection with such person's acquisition, disposition or holding of the notes.

If you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh plan), and propose to invest in the notes, you should consult your legal counsel.

LISTING AND GENERAL INFORMATION

If indicated in the applicable final terms, application will be made to list the particular issue of notes issued under this Base Prospectus on the Official List and to admit them to trading on the regulated market of the Luxembourg Stock Exchange.

Pursuant to the Prospectus Regulation and Luxembourg Prospectus law, this Base Prospectus and all supplements to the Base Prospectus, all documents incorporated by reference herein and filed with the CSSF, and any final terms will be made available by the Luxembourg Stock Exchange on its website at www.luxse.com.

As long as any notes are listed on the Official List of the Luxembourg Stock Exchange and the rules of the Luxembourg Stock Exchange shall so require, The Goldman Sachs Group, Inc. will maintain a paying agent in Luxembourg. The paying agent and listing agent in Luxembourg is Banque Internationale à Luxembourg, *société anonyme*. We are under no obligation to maintain the listing of any notes that are listed.

Issues of notes denominated in Swiss francs will be effected in compliance with the relevant regulations of the Swiss National Bank.

The issuance of the notes has been authorized by resolutions adopted by the Board of Directors of The Goldman Sachs Group, Inc. on October 28, 2011 and a Determination of the Treasurer, dated October 6, 2021.

Our board of directors has a written related person transactions policy regarding the review and approval of transactions between us and "related persons" (directors, executive officers, immediate family members of a director or executive officer, or known 5% shareholders). Under the policy, transactions that exceed $120,000 in which a related person may have or may be deemed to have a direct or indirect material interest are submitted to our Governance Committee Chair, our Audit Committee Chair or our full Governance Committee for approval, as applicable. Certain transactions, including employment relationships, ordinary course brokerage, investment and other services, payment of certain regulatory filing fees and certain other ordinary course non-preferential transactions, are considered preapproved transactions, and thus do not require specific approval under the policy (although these transactions must be reported to our Governance Committee and may still be submitted for approval if deemed appropriate).

In determining whether to approve a related person transaction, the following factors, among others, are considered: whether the transaction is fair and reasonable to us and on substantially the same terms as would apply to comparable third-parties; the business reasons for the transaction; whether the transaction would impair the independence of an independent director; whether the transaction presents a conflict of interest, taking into account the size of the transaction, the financial position of the independent director or executive officer, the nature of the independent director's or executive officer's interest in the transaction and the ongoing nature of the transaction; any disclosure or reputational issues; and whether the transaction is material, taking into account the significance of the transaction to our investors.

Potential conflicts of interests: transactions and relationships that may involve directors or executive officers or entities affiliated with them are described in the section "Certain Relationships and Related Transactions" on pages 97 – 99 of the 2023 Proxy Statement, which is incorporated by reference herein.

We are registered in the State of Delaware in the United States. The Goldman Sachs Group, Inc. is organized and exists under the Delaware General Corporation Law. We filed our original certificate of incorporation with the Secretary of State of the State of Delaware on July 21, 1998. Pursuant to the laws of the State of Delaware, the duration of our company is unlimited. Our registration number is 2923466. Pursuant to the paragraph headed "Third" of the second clause our Restated Certificate of Incorporation, the purpose of our company is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law.

The business address of the directors of The Goldman Sachs Group, Inc. is 200 West Street, New York, New York 10282, United States, telephone +1 (212) 902-1000.

Documents Available for Review

As long as any notes remain outstanding, copies of The Goldman Sachs Group, Inc. Restated Certificate of Incorporation, Amended and Restated By-laws and most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K may be obtained during normal business hours on any weekday (*i.e.*, except Saturdays, Sundays and public holidays) at the specified office of, or upon written request to, the fiscal agent and, as long as any notes are listed on the Official List of the Luxembourg Stock Exchange and its rules require, free of charge at the office of the listing agent in Luxembourg. In connection with any note listed on the Luxembourg Stock Exchange, a copy of the related final terms, the Base Prospectus and supplements to the Base Prospectus may be obtained from the listing agent. In addition, a copy of the fiscal agency agreement will be available for inspection at those offices during those hours.

Copies of these documents are, or will be, available on the website of The Goldman Sachs Group, Inc., https://www.goldmansachs.com/investor-relations/index.html or, where indicated, on the website of the Luxembourg Stock Exchange, www.luxse.com. No information on such websites forms part of this Base Prospectus, except where that information has been incorporated by reference into this Base Prospectus. Copies of this Base Prospectus and all documents that are incorporated by reference herein shall be available in electronic form for at least ten years following the publication of this Base Prospectus, at the websites indicated in "Documents Incorporated by Reference" above.

Independent Registered Public Accounting Firm

Our consolidated statements of financial condition as of December 31, 2021 and December 31, 2022, the related consolidated statements of earnings, cash flows and changes in shareholders' equity for the fiscal years ended December 31, 2020, December 31, 2021 and December 31, 2022, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2022 (which is included in management's report on internal control over financial reporting) are incorporated herein by reference to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 and have been audited by PricewaterhouseCoopers LLP, as stated in their report incorporated by reference herein. No other information in this Base Prospectus has been audited by PricewaterhouseCoopers LLP.

PricewaterhouseCoopers LLP, is an independent registered public accounting firm under the rules of the Public Company Accounting Oversight Board, of 300 Madison Avenue, New York, New York 10017, U.S.A., and a member of the American Institute of Certified Public Accountants.

Yield

In relation to any tranche of fixed rate notes, an indication of yield in respect of such notes will be specified in the applicable final terms. The yield is calculated at the issue date of the notes on the basis of the relevant issue price. The yield indicated will be calculated as the yield to maturity as at the issue date of the notes and will not be an indication of future yield.

Material Adverse or Significant Changes and Legal Proceedings

There has been no material adverse change in the prospects of The Goldman Sachs Group, Inc. since December 31, 2022.

There has been no significant change in the financial position or financial performance of The Goldman Sachs Group, Inc. subsequent to December 31, 2022.

The Goldman Sachs Group, Inc. has not been involved in any governmental, legal or arbitration proceedings during the twelve months before the approval date of this Base Prospectus, which may have, or have had in the recent past, significant effects on The Goldman Sachs Group, Inc.'s financial position or profitability, except as may otherwise be indicated in Part II, Item 8: Financial Statements and Supplementary Data – Note 27: Legal Proceedings on pages 210-223 of our 2022 Form 10-K.

In the foregoing statements required by the Prospectus Regulation, references to the “prospects”, “financial performance” and “financial position” of the Issuer, are specifically to the ability of the Issuer to meet its full payment obligations under the notes in a timely manner. Material information about our financial condition and prospects is included in the periodic reports on Forms 10-K, 10-Q and 8-K which are incorporated by reference into this Base Prospectus.

TAXATION

Investors should be aware that the tax legislation of the country in which the investor is resident and of The Goldman Sachs Group, Inc.'s country of incorporation may have an impact on the income received from the notes.

The level and basis of taxation on the notes and on the holders and any reliefs from such taxation depend on the holder's individual circumstances and could change at any time and may have an impact on the return received by the holder.

The tax and regulatory characterization of the notes may change over the life of the notes. Investors will therefore need to consult their own tax advisers to determine the specific tax consequences of the purchase, ownership, transfer and redemption, exercise or expiry or enforcement of the notes.

UNITED STATES TAXATION

The following is a summary of the principal United States federal income and estate tax consequences to a United States alien holder. You are a United States alien holder if you are the beneficial owner of a note and are, for United States federal income tax purposes:

- a nonresident 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 for a note

that does not hold the note in connection with the conduct of a trade or business within the United States.

This summary deals only with notes that are properly treated as debt for U.S. federal income tax purposes. The United States federal income tax consequences of owning notes that may not be so treated will be discussed in the applicable final terms.

Prospective purchasers of notes should be advised that any bank which purchases a note will be deemed to represent that it is not purchasing the note in the ordinary course of its lending business and that it is buying the note either (1) for investment purposes only or (2) for resale to a third party that either is not a bank or is holding the note for investment purposes only.

Please consult your own tax advisor concerning the consequences of owning these notes in your particular circumstances under the Internal Revenue Code and the laws of any other taxing jurisdiction.

Under United States federal income and estate tax law, and subject to the discussions below under "— Foreign Account Tax Compliance Withholding", "— Dividend Equivalent Payments" and "—Backup Withholding and Information Reporting", if you are a United States alien holder of a note:

(1) we and other U.S. payors generally will not be required to deduct United States federal withholding tax from payments of principal and premium (if any) and interest, including original issue discount, to you if, in the case of payments of interest:

(a) you do not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote;

(b) you are not a controlled foreign corporation that is related to us through stock ownership; and

(c) the U.S. payor does not have actual knowledge or reason to know that you are a United States person and:

(A) you have furnished to the U.S. payor an Internal Revenue Service Form W-8BEN, Form W-8BEN-E or an acceptable substitute form upon which you certify, under penalties of perjury, that you are not a United States person;

(B) in the case of payments made outside the United States to you at an offshore account (generally, an account maintained by you at a bank or other financial institution at any location outside the United States), you have furnished to the U.S. payor documentation that establishes your identity and your status as the beneficial owner of the payment for United States federal income tax purposes and as a person who is not a United States person;

(C) the U.S. payor has received a withholding certificate (furnished on an appropriate Internal Revenue Service Form W-8 or an acceptable substitute form) from a person claiming to be:

(x) a withholding foreign partnership (generally a foreign partnership that has entered into an agreement with the Internal Revenue Service to assume primary withholding responsibility with respect to distributions and guaranteed payments it makes to its partners);

(y) a qualified intermediary (generally a non-United States financial institution or clearing organization or a non-United States branch or office of a United States financial institution or clearing organization that is a party to a withholding agreement with the Internal Revenue Service); or

(z) a United States branch of a non-United States bank or of a non-United States insurance company;

and the withholding foreign partnership, qualified intermediary or United States branch has received documentation upon which it may rely to treat the payment as made to a person who is not a United States person that is, for United States federal income tax purposes, the beneficial owner of the payments on the notes in accordance with United States Treasury regulations (or, in the case of a qualified intermediary, in accordance with its agreement with the United States Internal Revenue Service);

(D) the U.S. payor receives a statement from a securities clearing organization, bank or other financial institution that holds customers' securities in the ordinary course of its trade or business:

(x) certifying to the U.S. payor under penalties of perjury that an Internal Revenue Service Form W-8BEN, Form W-8BEN-E or an acceptable substitute form has been received from you by it or by a similar financial institution between it and you; and

(y) to which is attached a copy of the Internal Revenue Service Form W-8BEN, Form W-8BEN-E or acceptable substitute form; or

(E) the U.S. payor otherwise possesses documentation upon which it may rely to treat the payment as made to a person who is not a United States person that is, for United States federal income tax purposes, the

beneficial owner of the payments on the notes in accordance with United States Treasury regulations;

(2) no deduction for any United States federal withholding tax will be made from any gain that you realize on the sale or exchange of your note; and

(3) a note held by an individual who at death is not a citizen or resident of the United States will not be includible in the individual's gross estate for purposes of the United States federal estate tax if:

(a) the decedent did not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote at the time of death; and

(b) the income on the note would not have been effectively connected with a United States trade or business of the decedent at the time of death.

Foreign Account Tax Compliance Withholding (FATCA)

A U.S. law enacted in 2010 (commonly known as "FATCA") could impose a withholding tax of 30% on interest income (including original issue discount) and other periodic payments on notes paid to you or any non-U.S. person or entity that receives such income (a "non-U.S. payee") on your behalf, unless you and each such non-U.S. payee in the payment chain comply with the applicable information reporting, account identification, withholding, certification and other FATCA-related requirements. 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.

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 you hold the notes, who credits the payment to your account. Accordingly, if you receive 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, your non-U.S. bank or broker through which you hold the notes fails to comply with the FATCA requirements and is subject to withholding. This would be the case even if you 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 notes 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 notes through financial institutions in) those countries.

We will not pay any additional amounts in respect of this withholding tax, so if this withholding applies, you will receive less than the amount that you would have otherwise received.

Depending on your circumstances, you may be entitled to a refund or credit in respect of some or all of this withholding. However, even if you are entitled to have any such withholding refunded, the required procedures could be cumbersome and significantly delay your receipt of any withheld amounts. You should consult your own tax advisors regarding FATCA. You should also consult your bank or broker through which you would hold the notes about the likelihood that payments to it (for credit to you) may become subject to withholding in the payment chain.

Dividend Equivalent Payments

Section 871(m) of the Code provides for a 30% 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 a U.S. equity. Under these rules, if a note that is issued after January 1, 2017 provides for "delta-one" exposure to the performance of shares of a U.S. corporation, we will be obligated to impose U.S. withholding tax in respect of the actual dividends that are paid on the shares of the corporation (or corporations) that are referenced by the note even if we do not actually transmit such amounts to you. This tax will also apply if a note provides for delta-one exposure to an index or basket that includes shares of a U.S. corporation, unless 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 U.S. corporations that are included in the index. A note will generally be treated as providing for a "delta-one" position if it provides for 100% participation in all of the appreciation and depreciation in the performance of the shares that are referenced by the note during the term of the note.

Notes issued pursuant to this Base Prospectus will not be subject to withholding under the rules described above. However, a holder may be subject to Section 871(m) even if it holds a note that is not a "delta-one" note under the rules described above if (a) the holder's position under the note 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 note 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 notes. In such a case, a United States alien holder may be liable for Section 871(m) tax in respect of its notes even when no withholding is required in respect of the notes.

Furthermore, notes that are issued on or after January 1, 2025 may be subject to Section 871(m) even if they are not a "delta-one" note under the rules described above. It is possible that the IRS could assert that a note that is issued before such date could be deemed to be reissued for tax purposes after January 1, 2025 upon a rebalancing or adjustment of the asset, position, index or basket that is referenced by the note. In such a case, a note that is originally issued before January 1, 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.

The application of Section 871(m) to the notes is complex, and there may be uncertainties regarding the application of Section 871(m) to the notes. If you are a United States alien holder, you should consult your tax advisor about the application of Section 871(m) to your notes.

Backup Withholding and Information Reporting

In general, we and other payors are required to report payments of interest on your notes on IRS Form 1042-S. Payments of principal, premium or interest, including OID, made by us and other payors to you would otherwise not be subject to information reporting and backup withholding, provided that the certification requirements described in clause (1)(c) above are satisfied or you otherwise establish an exemption.

In addition, payment of the proceeds from the sale of notes effected at a United States office of a broker will not be subject to backup withholding and information reporting if (i) the payor or broker does not have actual knowledge or reason to know that you are a United States person and (ii) you have furnished to the payor or broker an appropriate IRS Form W-8, an acceptable substitute form or other documentation upon which it may rely to treat the payment as made to a non-United States person.

In general, payment of the proceeds from the sale of notes 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 could be subject to information reporting in the same manner as a sale within the United States (and in certain cases may be subject to backup withholding as well) if (i) the broker has certain connections to the United States, (ii) the proceeds or confirmation are sent to the United States or (iii) the sale has certain other specified connections with the United States. In addition, certain foreign brokers may

be required to report the amount of gross proceeds from the sale or other disposition of notes under FATCA if you are, or are presumed to be, a United States person.

You generally may obtain a refund of any amounts withheld under the backup withholding rules that exceed your income tax liability by filing a refund claim with the IRS.

AUSTRIA

The information contained in this section is only a non-binding information for investors. The following is a brief summary of Austrian (income) tax aspects in connection with the notes. It does not claim to fully describe all Austrian tax consequences of the acquisition, ownership, disposition, (early or final) redemption, exercise or settlement of the notes, but only of certain aspects. Further, this overview does not take into account or discuss the tax laws of any country other than Austria nor does it take into account the investors' individual circumstances. Under no circumstances will the Issuer issue any tax advice to the investors with this information. Rather, this reference does not replace the advice of a tax adviser, which is indispensable in every individual case. As different types of notes may be issued under this base prospectus, the tax treatment of such notes can be different due to their specific terms. Any taxes or other charges which may be payable in connection with the payment of interest, capital gains or repayment amount shall be borne by the respective investor. In the case of payments due under the notes and in case of sale of the notes, tax may be incurred in Austria. Tax risks resulting from the notes (in particular from a potential qualification as a foreign investment fund within the meaning of section 188 of the Austrian Investment Funds Act (Investmentfondsgesetz – "InvFG")) shall in any case be borne by the respective investors. In certain situations or for certain investors, exceptions to the legal situation described here may apply. Prospective investors are advised to consult their own professional advisors to obtain further information about the tax consequences of the acquisition, ownership, disposition, (early or final) redemption, exercise or settlement of any of the notes. Only personal advisors are in a position to adequately take into account special tax aspects of the particular notes in question as well as the respective investor's personal circumstances and any special tax treatment applicable to such investor. This overview is based on Austrian law as in force as of the date of this Base Prospectus. The laws and their interpretation by the tax authorities may change and such changes may also have retroactive effect. With regard to certain innovative or structured financial notes or instruments there is currently hardly any case law or comments of the financial authorities as to the tax treatment of such financial notes or instruments. Accordingly, it cannot be ruled out that the Austrian financial authorities and courts or the Austrian credit institutions (custodial institutions) adopt a view different from that outlined below.

Individual Investors

Individual is Austrian resident or has his/her habitual abode in Austria

For the purpose of the below outlined principles regarding the taxation of investment income in Austria it is assumed that the notes are securitized, legally and factually offered to an indefinite number of persons (public offering) and are neither equity instruments, such as shares or participation rights (*Substanzgenussrechte*), nor investment fund units. For private placements other principles apply. For non-securitized derivatives the principles outlined below would be applicable if the custodial institution (see below) withholds and pays tax as explained below on a voluntary basis.

If income from the notes is paid out by a custodial institution (Austrian credit institutions as well as Austrian branches of foreign credit institutions paying out the income to the holder of the notes (*depotführende oder auszahlende Stelle*)) located in Austria ("Austrian Custodial Institution"), the custodial institution has to withhold and pay to the Austrian tax authorities 27.5% withholding tax pursuant to section 93 in conjunction with section 95 paragraph 2 numbers 1 and 2 of the Austrian Income Tax Act (*Einkommensteuergesetz* – "EStG"). The term "income from the notes" includes (i) current income (interest payments) as well as (ii) income, if any, realized upon redemption or prior redemption or (iii) income realized upon sale of the notes (capital gains). Securities with a value-based repayment are assessed by the

Austrian tax authorities as certificates. Accordingly, certificates are securitized capital claims that reflect the performance of an underlying asset and grant the buyer a right to receive a monetary or settlement amount that depends on the value of the underlying asset. Underlyings may include stocks, indices, commodities, currencies, bonds or precious metals. Capital gains from such securities are treated by the Austrian tax authorities as income from derivative financial instruments according to section 27 paragraph 4 EStG. Additional special rules on deducting 27.5% withholding tax apply to cash or share notes.

In case no withholding tax is levied on income from the notes (*i.e.*, interest income is not paid out by an Austrian Custodial Institution), Austrian resident individual investors will have to declare the income derived from the notes in their income tax returns pursuant to the EStG. In this case the income from the notes is subject to the flat (special) income tax rate of 27.5% pursuant to section 27a paragraph 1 EStG.

Upon relocation abroad investment income realized until the time of relocation is generally taxable in Austria. However, in case of relocation within the European Union or the European Economic Area taxation can be postponed until actual realization of the income based on a respective application for notes held as non-business assets. Special rules also apply to the transfer of a custodian account from Austria abroad (under certain circumstances also a transfer within Austria). Since 1 January 2016 for notes held as business assets, exit tax arises upon relocation but generally may be paid over five years.

The 27.5% withholding tax generally constitutes a final taxation (*Endbesteuerung*) according to section 97 EStG for all Austrian resident individuals, if they hold the notes as a non-business asset. The final taxation is also applicable for current income derived by Austrian resident individuals, if the hold the notes as business assets, however, capital gains in this case are taxable at the progressive income tax rate (up to 55%). Final taxation means that no further income tax will be assessed, and the income is not to be included in the investor's income tax return. According to section 27a paragraph 5 EStG, the investor may opt to include the total investment income in its individual tax return. In such case the tax already withheld is credited against the otherwise assessed income tax (progressive tax rate up to 55%) or paid back, respectively. Expenses incurred by the individual investor in relation to the acquisition, ownership, disposition, (early or final) redemption, exercise or settlement of the notes (*e.g.*, bank fees or commissions) are not tax deductible (*Abzugsverbot*) according to section 20 paragraph 2 EStG. Acquisition related costs, however, increase the tax-relevant acquisition costs of the notes if the notes are held as business assets. Generally, a certain amount of loss compensation is possible under certain conditions.

The Treaty between the Republic of Austria and the Principality of Liechtenstein on Cooperation in the Area of Taxation ("Tax-Treaty") was revised with regard to the implementation of the AEOI-Agreement between Austria and Liechtenstein as well with effect from 1 January 2017. As a result certain accounts of tax transparent asset structures (*steuerlich transparente Vermögensstrukturen*) existing on 31 December 2016 and of non-transparent asset structures (*steuerlich intransparente Vermögensstrukturen*) may further be subject to the Tax Treaty and exempt from AEOI. The Tax Treaty provides that a Liechtenstein paying agent has to withhold a tax amounting to 25% or 27.5% on, inter alia, interest income, dividends and capital gains from assets booked with an account or deposit of such Liechtenstein paying agent, if the relevant holder of such assets (mainly individuals on their own behalf and beneficial owners of assets held by a company domiciled in Liechtenstein) is tax resident in Austria. The same applies for assets of Austrian tax residents which are managed by a Liechtenstein paying agent. For Austrian income tax purposes this withholding tax has the effect of final taxation regarding the underlying income if the EStG provides for the effect of final taxation for such income. Instead of paying the withholding tax, the taxpayer can opt for voluntary disclosure of the income and capital gains to the competent Austrian authority by expressly authorising the Liechtenstein paying agent; such disclosed income and capital gains subsequently have to be included in the taxpayer's income tax return.

Risk of Requalification

Further, subject to certain conditions, the notes may be re-qualified as units of a foreign investment fund in the meaning of section 188 InvFG. Pursuant to section 188 InvFG, the term "foreign investment fund" comprises (i) undertakings for collective investments in transferable securities ("UCITS") the state of origin of which is not Austria, (ii) alternative investment funds ("AIF") pursuant to the Austrian Act on Alternative Investment Fund Managers (*Alternative Investmentfonds Manager-Gesetz* – "AIFMG") the state of origin of which is not Austria (except property AIF (*AIF in Immobilien*) according to AIFMG); and (iii)

alternatively undertakings subject to a foreign jurisdiction, irrespective of the legal form they are organized in, the assets of which are invested according to the principle of risk-spreading on the basis either of a statute, of the undertaking's articles or of customary exercise, in cases of abnormally low taxation in the state of residence. Uncertainties exist as to the precondition under which a foreign issuer has to be qualified as an AIF manager; regarding the definition of an AIF, the guidelines issued by the Austrian Financial Market Authority (*Finanzmarktaufsichtsbehörde*) are applicable. Prospective investors are, therefore, advised to consult their tax advisors to obtain further information about the interpretation of the law and the application of the law by the tax authorities in this regard. In this respect, it should be noted that the Austrian tax authorities have commented upon the fact that also debt securities as, for instance, certificates may be classified as AIFs (item 77 Investment Fund Regulations 2018 (*Investmentfondsrichtlinien 2018*)). Pursuant to these regulations, this may be so, in particular, if (i) there is an obligation of the issuer vis-à-vis the investor regarding the investment of the issue proceeds and (ii) the issuer has the possibility to influence the performance of the investment. The term investment fund, however, does not encompass collective real estate investment vehicles pursuant to the Austrian Real Estate Funds Act (*Immobilien-Investmentfondsgesetz*).

In case of requalification of a financial instrument into a foreign investment fund in the meaning of section 188 InvFG, such foreign investment fund units are regarded as transparent for tax purposes. Both distributions as well as retained income are subject to income tax. Retained income may be deemed distributed for tax purposes (so called "income equivalent to distributions" (*ausschüttungsgleiche Erträge*)) as early as 31 December of each year. In case (i) a foreign investment fund does not have an Austrian tax representative and (ii) the investor has not made a self assessment of such income equivalent to distributions to the Austrian Custodial Institution, a lump sum calculation will take place. Such lump sum calculation generally results in a higher tax basis. Generally, such income is taxed at a rate of 27.5%: Capital gains on a disposal of units in foreign investment funds are either taxed by means of the 27.5% withholding tax or are taxed at the flat (special) income tax rate of 27.5% (depending on whether there is an Austrian Custodial Institution involved, or whether the Austrian resident individual investors have to declare the respective income in their income tax returns; see above). In addition, on non-investment income the progressive tax rate is applicable.

Individual is neither Austrian resident nor has his/her habitual abode in Austria

In case the investor (individual) is neither Austrian resident nor has his/her habitual abode in Austria, Austrian income tax will not apply on interest payments as well as capital gains from the (early or final) redemption or disposal of the notes, provided that the issuer is not Austrian resident, does not have its seat or place of management in Austria, is not an Austrian branch of a foreign credit institution nor the notes are attributable to a permanent establishment in Austria. If the investment income of non-resident individual investors is not subject to limited income tax liability in Austria, tax deduction can be omitted, subject to certain conditions. The Austrian Custodial Institution may refrain from withholding already at source only, if the non-resident investor furnishes proof of non-residency.

Corporations / Private Foundations

Generally, interest or income from the disposition, redemption, exercise or settlement of the notes is subject to corporate income tax at a rate of 24% (as from 2024: 23%) pursuant to section 22 of the Austrian Corporate Income Tax Act (*Körperschaftsteuergesetz – "KStG"*). The withholding tax is credited against corporate income tax. Corporate investors deriving business income from the notes may avoid the application of withholding tax by filing a declaration of exemption (*Befreiungserklärung*) in the meaning of section 94 no 5 EStG with the Austrian Custodial Institution. Additionally, the notes have to be held in a custodial account with a credit institution. Generally, for private foundations holding the notes as non-business assets, the same tax rules as for individuals (see above) apply. However, in case of private foundations pursuant to the Austrian Private Foundations Act (*Privatstiftungsgesetz – "**PSG**"*) fulfilling the prerequisites contained in section 13 paragraph 1 KStG and holding the notes as a non-business asset no withholding tax is levied on income on such notes under the conditions set forth in section 94 no 12 EStG. Interest or income from the disposition, (early or final) redemption, exercise or settlement of the notes is not subject to the flat (special) income tax rate of 27.5% pursuant to section 27a EStG. Instead, pursuant to section 13 paragraph 3 KStG an interim tax (*Zwischensteuer*) at a rate of 25% is levied on such income.

This interim tax can be credited against withholding tax for amounts granted to beneficiaries of the private foundation pursuant to the PSG.

International Exchange of Information

Based on the OECD Common Reporting Standard, the states which have committed themselves to implement this standard ("Participating States") will exchange potentially taxation-relevant information about financial accounts which an individual holds in a Participating State other than his country of residence. This procedure commenced in 2017 with information for the year 2016.

Austria implemented the relevant directive of the European Council (2014/107/EU) with the Austrian Common Reporting Standard Act (*Gemeinsamer Meldestandard-Gesetz* – "GMSG") which became effective on 1 January 2016. The GMSG determines for the purpose of the multilateral mechanism for automatic tax information exchange between Austria and the competent authorities of the other EU member states and of participating non EU countries reporting and due diligence requirements for reporting financial institutions regarding notification obligations via the competent Austrian tax authority. Generally, reporting requirements under the GMSG are applicable to periods starting on 1 January 2017. The notifications generally have to be made not later than by the end of June for the previous calendar year.

Responsibility for Withholding of Taxes

The Issuer does not assume liability for the withholding of taxes at source. Withholding tax is levied by an Austrian Custodial Institution.

Inheritance and Gift Tax

In Austria, inheritance and gift tax is not levied any more. Gifts upon living persons (*Schenkungen unter Lebenden*) are, however, to be notified to the tax authorities. This applies if the donor or the acquirer is an Austrian tax resident or has his/her habitual abode in Austria at the time of the donation. In case of corporations, the registered seat or the actual place of management in Austria is relevant. Exemptions apply to donations between close family members if the value of the gift(s) does not exceed EUR 50,000 within one year and to donations between other persons if the value of the gift(s) does not exceed EUR 15,000 within five years. Although this disclosure requirement does not trigger any tax for the donation in Austria, breach of the disclosure requirement may be fined with an amount of up to 10% of the value of the gift.

Certain gratuitous transfers of assets to (Austrian or foreign) private foundations and comparable legal estates are subject to foundation transfer tax (*Stiftungseingangssteuer*) according to the Austrian Foundation Transfer Tax Act (*Stiftungseingangssteuergesetz*). Such tax is triggered if at the time of the transfer the transferor and/or the transferee have a domicile, their habitual abode, their legal seat or their place of management in Austria. Certain exemptions apply in case of transfers *mortis causa* of financial assets according to section 27 paragraph 3 and 4 EStG (except shares in companies) if income from such financial assets is subject to tax at the flat (special) income tax rate pursuant to section 27a EStG. The tax basis is the fair market value of the assets transferred minus any debts, calculated at the time of transfer. The tax rate is 2.5% in general with a higher rate of 25% applying in special cases. Special provisions apply to transfers to entities falling within the scope of the tax treaty between Austria and Liechtenstein.

Further, gratuitous transfers of notes pursuant to section 27 paragraph 6 no 2 EStG may trigger income tax at the level of the transferor.

Other Taxes

There are no transfer taxes, registration taxes or similar taxes payable in Austria as a consequence of the issuance, acquisition, ownership, (early or final) redemption or disposition of the notes. Wealth tax is currently not levied in Austria.

BELGIUM

The following is a general description of certain Belgian tax considerations relating to the notes. It specifically contains information on taxes on the income from the notes withheld at source and provides an indication as to whether the Issuer assumes responsibility for the withholding of taxes at the source. It also deals with some other (indirect) taxes. It does not purport to be a complete analysis of all tax considerations relating to the notes, whether in Belgium or elsewhere. Prospective purchasers of the notes should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of the notes, payments of interest, principal and/or other amounts under the notes and the consequences of such actions under the tax laws of Belgium. This overview is based upon the law as in effect on the date of this Base Prospectus. The information contained within this section is limited to withholding, stock exchange and securities account taxation issues, and prospective investors should not apply any information set out below to other areas, including (but not limited to) the legality of transactions involving the notes.

If the Issuer is making payments in respect of the notes, which qualify as "interest" for Belgian tax purposes, and these payments are made to investors via a Belgian paying agent or other financial intermediary established in Belgium, then a 30% withholding tax will normally apply (calculated on the interest received after deduction of any non-Belgian withholding taxes), save where an exemption is applicable (e.g. for interest payments made by non-residents (like the Issuer) to non-resident investors which are not imputed on the results of a Belgian (permanent) establishment of the debtor and which are made through regulated financial intermediaries (including licensed securities clearing or settlement institutions) established in Belgium, subject to compliance with some certification requirements regarding conditions applicable to the investor, or for interest payments made by non-residents (like the Issuer) to Belgian resident companies subject to Belgian corporate tax or Belgian (permanent) establishments of non-Belgian companies subject to Belgian non-resident corporate tax, in respect of bonds and similar debt instruments invested in a business activity in Belgium) or where a rate reduction is available. This withholding tax is the final tax for private individuals and non-profit legal entities resident in Belgium and constitutes an advance tax payment for individual professional investors, resident companies established in Belgium and Belgian (permanent) establishments of non-Belgian companies, which is creditable against their final income tax assessment and any excess withholding may be refundable.

As non-resident of Belgium, not acting through a Belgian establishment or branch office, the Issuer does not assume responsibility for the Belgian withholding tax referred to above.

A stock exchange tax will be levied on the purchase and sale executed in Belgium of notes on the secondary market through a professional intermediary. A transaction is also deemed to take place in Belgium if the order is transmitted directly or indirectly to an intermediary established outside of Belgium by a physical person with normal residence in Belgium or by a legal person on behalf of a seat or establishment of such person located in Belgium. The rate applicable for secondary sales and purchases is 0.12% with a maximum of EUR 1,300 per transaction and per party, insofar the notes fall within the category of bonds, otherwise the rate is 0.35% with a maximum of EUR 1,600 per transaction and per party. A separate tax is due from each of the seller and the purchaser, both collected by the professional intermediary. If the professional intermediary is established outside of Belgium, then the tax is normally due by the Belgian investor transmitting the order, unless evidence that the tax has already been paid. However, the stock exchange tax will not be payable by certain exempt persons or entities, acting for their own account, including non-residents (subject to certain formalities) and certain Belgian institutional investors.

The Law of 17 February 2021 introduced an annual tax on securities accounts with effect from 26 February 2021. An annual tax of 0.15% is levied on securities accounts of which the average value of the taxable financial instruments (covering, amongst others, financial instruments such as bonds, notes and warrants) held thereon during a reference period of twelve consecutive months (in principle) starting on 1 October and ending on 30 September of the subsequent year, would exceed EUR 1 million. The tax base is established by reference to four reference dates, i.e. 31 December, 31 March, 30 June and 30 September. The amount of the tax due is limited to 10% of the difference between said average value of the taxable financial instruments and the threshold of EUR 1 million. The tax targets securities accounts

held by resident individuals, companies and other legal entities, irrespective as to whether these accounts are held with a financial intermediary which is incorporated or established in Belgium or abroad. The tax will also apply to securities accounts held by non-resident individuals, companies and other legal entities with a financial intermediary incorporated or established in Belgium. There are various exemptions, such as securities accounts held by specific types of regulated entities for their own account.

The specific anti-abuse provision applicable as from October 30, 2020 targeting the splitting of a securities account in multiple securities accounts held with the same intermediary and the conversion of taxable financial instruments held in a securities account in financial instruments in registered form has been annulled by the Belgian constitutional court in its decision of October 27, 2022. In addition, the Belgian constitutional court annulled the original date of entry into force (October 30, 2020) of the general anti-abuse provision, which is now applicable as from February 26, 2021 in respect of the annual tax.

BULGARIA

To the extent that (a) the Issuer of the notes under this Base Prospectus is a non-Bulgarian entity and (b) any payments under the notes will be paid by non-Bulgarian entities, no withholding tax will be imposed in Bulgaria on the income from the notes.

CROATIA

The following statements and discussions of certain Croatian tax considerations relevant to the purchase, holding or sale of securities in Croatia are of a general nature only and do not purport to exhaustively describe all possible tax aspects and do not deal with specific situations which may be of relevance for potential investors in securities under Croatian law. These statements are not intended to be, nor should they be construed to be, legal or tax advice. This summary is based on the currently valid tax legislation which may be amended from time to time. Such amendments may possibly also be effected with retroactive effect and may negatively impact on the tax consequences described. Potential purchasers of the securities will therefore need to consult their own legal and tax advisors as to the tax consequences of the purchase, holding or sale of the securities. Tax risks resulting from the securities shall in any case be borne by the holders of securities. The Issuer assumes no responsibility with respect to taxes withheld at source.

Corporations, legal entities and individuals engaged in economic activities

General Remarks

Companies, legal entities and individuals independently and permanently engaged in economic activities for the purpose of generating profit, having their place of effective management and/or their registered legal seat in Croatia, are subject to profit tax pursuant to the Croatian Profit Tax Act (*Zakon o porezu na dobit*, Official Gazette No. 177/2004, as amended from time to time; "Profit Tax Act") (unlimited corporate income tax liability). Such companies, legal entities and individuals having neither their place of effective management nor their registered legal seat in Croatia are subject to corporate income tax only on income from certain Croatian sources (limited corporate income tax liability).Generally, the profit tax base is the difference between revenues and expenditures assessed pursuant to accounting rules, which is then increased and reduced for tax-specific items under the profit tax provisions. The tax base for residents is based on their worldwide income, while for non-residents is based only on income from Croatian sources.

Profit tax is taxable at the rate of (i) 10% applicable to companies, legal entities and individuals subject to profit tax with annual revenues below EUR 995,421.06 and (ii) 18% applicable to companies, legal entities and individuals subject to profit tax with annual revenues equal or above EUR 995,421.06. Accordingly, if a Croatian company, other legal and natural persons or business unit of a non-resident subject to paying profit tax is a holder of securities, income on this basis would not be taxed directly, but such persons, should their overall operations generate profit, would be required to pay a profit tax of 10% or 18%, as applicable.

Entities subject to profit tax may be also subject to windfall tax pursuant to the Croatian Additional Profit Tax Act (*Zakon o dodatnom porezu na dobit*, Official Gazette No. 151/2022, as amended from time

to time; "Additional Profit Tax Act"). The windfall tax regime applies to all companies that generated taxable revenues in excess of EUR 39,816,842.50 in 2022. It currently applies only to taxable profits from 2022, but it may be extended to apply to profits generated in 2023. The additional profit tax applies to taxable profits generated in the fiscal year 2022 and representing more than 20% of the average taxable profits in the four fiscal years starting on or after 1 January 2018 (that is, the period 2018-2021). The currently applicable tax rate is 33%.

The general rules on taxation of corporations, legal entities and individuals engaged in economic activities outlined herein apply to the extent there are no limitations imposed under applicable double taxation treaties or regulations.

Withholding Tax

Profit generated in Croatia by a non-resident is subject to withholding tax pursuant to the Profit Tax Act. Withholding tax payment is the obligation of the person who distributes the profit.
Interest, dividends, profit shares, copyrights and other intellectual property rights payable to a non-resident natural person are all subject to withholding tax. The tax base is calculated as the gross amount of profit distributed from a Croatian resident to a non-resident.

The withholding tax rate is 15%, except for dividends and profit shares for which the withholding tax is paid at a rate of 10%. As an exception, withholding tax is paid at a rate of 20% for all payments in case payments are made to legal entities having their seat or place of effective management in a country which is listed on the EU list of non-cooperative jurisdictions for tax purposes and with which Croatia does not have a double taxation treaty.

Interest payments on commodity loans for the purchase of goods used for carrying out a taxpayer's business activity, loans granted by a non-resident bank or other financial institution, and holders of government or corporate bonds who are non-resident legal persons are exempted from withholding tax payment.

Natural Persons

General Remarks

Pursuant to the Croatian Income Tax Act (*Zakon o porezu na dohodak*, Official Gazette No. 115/2016, as amended from time to time; "Income Tax Act"), individuals having a permanent domicile and/or their habitual abode in Croatia are subject to income tax in Croatia on their worldwide income (unlimited income tax liability). Individuals having neither a permanent domicile nor their habitual abode in Croatia (non-residents) are subject to income tax only on income from certain Croatian sources (limited income tax liability).

Depending on the tax base, annual income tax rates are: (i) tax base up to EUR 47,780.28 – 20%, (ii) tax base above EUR 47,780.28 – 30%. The aforementioned tax rates can be further increased in accordance with applicable surtax ranging from 0% to 18% depending on the exact location of residence in Croatia.

Income that is realized in a foreign currency shall be converted to Euro counter value by applying the middle exchange rate of the Croatian National Bank valid at the date of payment.

The general rules on taxation of natural persons outlined herein apply to the extent there are no limitations imposed under applicable double taxation treaties or regulations.

Capital Income

Capital income, as defined by the Income Tax Act, includes receipts from interest, exclusions of property and usage of services at the expense of profit of the current period, capital gains and profit shares

acquired by grants or optional purchases of own shares, as well as receipts from dividends and profit shares based on shares of capital that are realized in the tax period.

Receipts from any type of claims are considered as interest, and especially (i) receipts from interest on savings in Euro or foreign currencies, (ii) receipts from interest that are based on securities, (iii) receipts of interest on the basis of given loans, and (iv) receipts from distribution of income of an investment fund in the form of interest, if they are not taxed as profit shares on the basis of the distribution of profit or income of an investment fund. Receipts from interest realized by investing into bonds, irrespective of the issuer and type of bonds are not considered as interests for capital income tax purposes. The capital income based on receipts from interest is generally taxable with a tax rate of 10%.

Capital income from capital gains represents the difference between the purchase value and agreed selling price or receipt assessed on the basis of market value of the financial property that is being disposed of. Receipts are also considered those from disposing of financial instruments and structured products (hereinafter: financial property), i.e., receipts from (i) transferrable securities and structured products, including shares of companies and other associations whose shares may be disposed of similarly as shares of companies, (ii) money market instruments, (iii) units of joint venture entities, (iv) derivatives, and (v) a proportional part of the salvage value in a case of dissolution of the investment fund and other receipts from ownership shares in a case of dissolution, winding up or withdrawal.

Disposal of financial property includes sale, exchange, gift and other types of transfer, but does not include: (i) transfer of shares from one voluntary pension fund to another, (ii) exchange of securities with equivalent securities of the same issuer, provided that the relations among the holders of shares and capital of the issuer are not affected, as well as exchange of securities or financial instruments with other securities or financial instruments, and acquisition of securities or financial instruments in a case of change of status, provided that in all such cases there is no cash flow and the sequence of acquisition of financial property is ensured (where the value assessed on the date of the first acquisition of financial property shall be considered to be the purchase value), (iii) division of stocks of the same issuer, provided that there is no change of share capital or cash flow, (iv) exchange of shares among investment sub-funds of the same umbrella fund, or exchange of shares among investment funds that are managed by the same management company, provided that the sequence of acquisition of financial property is ensured (where the value assessed on the date of the first acquisition of financial property shall be considered to be the purchase value), and (v) repurchase of shares of the Croatian War Veterans' Fund.

The capital income from receipts from units of joint venture entities shall be assessed in the amount of realized yield that is decreased by the costs of the management of investments or property of the investment fund (net yield), or in a case of discounted securities and zero-coupon bonds, in the amount of the difference of the purchase value at the time of issue and realized value at the time of maturity if the purchaser shall hold the security until it becomes mature. The capital income from capital gains from investing financial property into portfolios, pursuant to the regulations that are regulating the capital market, shall be assessed at the time of realization of the yield from the portfolio, decreased by the costs of the management of portfolio (net yield).

The capital income from capital gains is generally taxable with a tax rate of 10%. However, capital income from capital gains shall not be taxed if the disposing of was made (i) between spouses and first-degree relatives and other members of the immediate family, (ii) between divorced spouses, if the disposing of is directly related to the divorce, (iii) in relation to inheritance of financial property, or (iv) after more than 2 years from the date of acquisition of such property.

If financial property was acquired as a gift and disposed of within 2 years from the date of acquisition, the capital income shall be assessed as the difference between the purchase value and agreed selling price or receipt assessed on the basis of the market value of the financial property that is being disposed of, whereas the date at which the giver acquired the financial property is considered to be the date of acquisition, and the market value at the time of acquisition shall be considered to be the purchase value.

Capital losses may be deducted only from the income from capital gains that is realized in the same calendar year. All the appertaining expenses incurred at the expense of the taxpayer are calculated in the capital losses. Capital losses may be stated up to the amount of the tax basis.

As capital income are also considered receipts from dividends and profit shares based on shares of capital and equal receipts which are considered as distributions of profit. Such capital income is generally taxable also at a rate of 10%.

Taxation of inheritance and gifts

If securities are received as an inheritance or gift, or acquired on any other basis without compensation on the territory of Croatia, the receiver would be required to pay taxes in the amount of 4% of the market value of the securities.

The following persons are exempt from taxation: (i) spouse, ancestors and descendants of the deceased person/donor, (ii) individual and legal entities that receive movable property as compensation or for other purposes related to the Homeland War, by the state or local government, (iii) individuals and legal entities that receive gifts or donations for purposes laid down by special regulations, and (iv) humanitarian organizations, religious communities, trusts, foundations and public authorities.

CZECH REPUBLIC

The following is a brief overview of the Czech (income) tax aspects in connection with the notes. It does not claim to fully describe all the Czech tax consequences of the acquisition, ownership, disposition or redemption of the notes. In some cases a different tax regime may apply. As under the Program different types of notes may be issued, the tax treatment of such notes may be different due to their specific terms. Further, this overview does not take into account or discuss the tax laws of any country other than the Czech Republic, nor does it take into account the investors' individual circumstances. Moreover, it does not cover potential impacts of social security and health insurance contributions (although in most cases such impacts are not likely in connection with the notes). Prospective investors are advised to consult their own professional advisors to obtain further information about the tax consequences of the acquisition, ownership, disposition, redemption, exercise or settlement of any of the notes. Only personal advisors are in a position to adequately take into account special tax aspects of the particular notes in question as well as the investor's personal circumstances and any special tax treatment applicable to the investor. Tax risks resulting from the notes shall in any case be borne by the investors.

This overview is based on Czech law as in force as of the date of this Base Prospectus. The laws and their interpretation by the tax authorities may change and such changes may also have retroactive effect. Moreover, the interpretations maintained by the relevant tax authorities may differ from the below. With regard to certain innovative or structured financial notes or instruments there is currently neither any case-law nor comments of the tax authorities as to the tax treatment of such financial notes and instruments. Accordingly, it cannot be ruled out that the Czech tax authorities and courts or the Czech paying agents adopt a view different from that outlined below.

Individual Investors

All payments of interest and principal by the Issuer under the notes (in Czech "dluhopisy") can be made free and clear of any withholding or deduction for or on account of any taxes of whatsoever nature imposed, levied, withheld, or assessed by Czech tax authorities.

Interest income paid to an individual who is a Czech tax resident (or to a Czech permanent establishment of an individual who is not a Czech tax resident) is included (not reduced by expenses) in the general personal income tax base (i.e. income from capital assets) and is subject to the 15% / 23% (23% rate is applied for tax base exceeding 48 times the average wage, i.e. CZK 1,935,552 for 2023) personal income tax. However, the respective taxpayer may opt for including such interest income to special

tax base (not reduced by expenses) that is subject to the 15% special personal income tax. In both options potential foreign tax could be credited under conditions and within the limits stipulated by the relevant double tax treaty and the Czech Act No. 586/1992 Coll., on Income Taxes, as amended.

Generally, profit from the sale of notes generated by an individual who is a Czech tax resident is included in the general personal income tax base (i.e. other income) and is subject to the 15% / 23% personal income tax. In general, a loss suffered by this category of taxpayers in sales of notes is non-tax deductible; however, under certain conditions, the loss and the profit from the sale of notes and other securities may be offset, with the ultimate result being generally tax-deductible.

If profit from the sale of notes is generated by an individual who is a Czech tax resident and who included notes in the his/her business property (or by a Czech tax non-resident through its permanent establishment located in the Czech Republic), is included in the general personal income tax base (i.e. income from independent activity) and is subject to the 15% / 23% personal income tax and subject to the social security and health insurance contributions. In general, a loss suffered by this category of taxpayers in sales of notes is tax deductible.

Any gain derived from the sale of the notes is exempt from Czech personal income tax if eg. (i) the individual has held the notes for more than three years prior to their sale and the notes have not been included in his/her business property of the Czech holder or if so, (ii) the notes will be sold after three years following the termination of such business activities at the earliest (in this respect, the Czech Income Tax Act stated some exceptions to this rule). Income from the sale of the notes will also be exempt from personal income tax if his/her (gross) worldwide income from the sale of securities (including the notes) in a given calendar year does not exceed the amount of CZK 100,000.

Generally, in case of non-resident holders of the notes no Czech tax will apply to the resulting interest payments and capital gains (we suppose that the investor does not have a Czech permanent establishment the notes are attributable to). The potential tax risk of tax security may arise e.g., when the capital income is paid by the Czech tax resident (or permanent establishment of Czech non-tax resident) to tax resident of so called third country (i.e. outside the EU / EEC) or tax resident of EU / EEC without the certificate of beneficial ownership.

Corporations

Interest income (which also includes proceeds as the difference between the notes' nominal value, redemption amount, and its lower issue price) paid to a most types of legal entities (and trust) that are Czech tax residents (or to a Czech permanent establishment of a most types of legal entities that are not a Czech tax residents) is included in the general corporate income tax base and is subject to the applicable corporate income tax rate (generally amounting to 19% in 2023, for so called basic investment funds amounting 5% in 2023). Potential foreign tax could be credited under conditions and within the limits stipulated by the relevant double tax treaty and the Czech Act No. 586/1992 Coll., on Income Taxes, as amended.

Profit from the sale of notes generated by most types of legal entities (and trust) that are Czech tax residents (or by a Czech tax non-resident through its permanent establishment located in the Czech Republic), is included in the general corporate income tax base and is subject to corporate income tax rate (generally amounting to 19% in 2023, for so called basic investment funds amounting 5% in 2023). In general, a loss suffered by this category of taxpayers in sales of notes is tax-deductible.

Generally, in case of non-resident holders of the notes no Czech tax will apply to the resulting interest payments and capital gains (we suppose that the investor does not have a Czech permanent establishment the notes are attributable to). The potential tax risk of tax security may arise e.g., when the capital income is paid by the Czech tax resident (or permanent establishment of Czech non-tax resident) to tax resident of so called third country (i.e., outside the EU / EEC) or tax resident of EU / EEC without the certificate of beneficial ownership.

DENMARK

The following is an overview description of the taxation in Denmark of the notes according to the Danish tax laws in force as of the date of this prospectus and is subject to any changes in law and the interpretation and application thereof, which changes could be made with retroactive effect. The following overview does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to acquire, hold or dispose of the notes, and does not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as professional dealers in securities) may be subject to special rules. The following assumes that the noteholder is the beneficial owner of the notes and interest income thereon. Potential investors are under all circumstances strongly recommended to contact their own tax advisor to clarify the individual consequences of their investment, holding and disposal of the notes. The Issuer makes no representations regarding the tax consequences of purchase, holding or disposal of the notes.

This section does not address the potential tax consequences of the U.S. Foreign Account Tax Compliance Act for Danish resident noteholders. Payments of interest and principal on notes may be subject to withholding tax under the FATCA withholding tax may also affect payments on the notes. The following does not include such FATCA withholding tax.

Taxation at source

Under existing Danish tax laws, no general withholding tax or coupon tax will apply to payments of interest or principal or other amounts due on the notes, other than in certain cases on payments in respect of controlled debt in relation to the Issuer as referred to in The Danish Corporation Tax Act (in Danish "*Selskabsskatteloven*") no. 251 of 2 February 2021 (as amended). This will not have any impact on noteholders who are not in a relationship whereby they directly, indirectly or due to agreed joint control are controlling, or are controlled by, the Issuer.

Danish resident holders of notes

Private individuals, including individuals who are engaged in financial trade, companies and similar enterprises resident in Denmark for tax purposes or receiving interest on the notes through their Danish permanent establishment are generally liable to pay tax on such interest. The taxation varies depending on the type of noteholder and type of note, and the described taxation herein only refers to corporate and individual noteholders who are not engaged in financial trade etc.

Capital gains and losses are taxable to individuals and corporate entities in accordance with the Danish Act on Taxation of Capital Gains on Claims, Debts and Financial Instrument (in Danish "*Kursgevinstloven*"), consolidated act no. 1390 of September 29, 2022 (as amended) (the "Act").

Gains and losses on notes issued to corporate entities are generally included in the taxable income in accordance with a mark-to-market principle (in Danish "*lagerprincippet*"), i.e. on an unrealized basis.

Gains and losses on notes issued to individuals are generally included in the taxable income on a realized basis. However, the gain or loss will only be included in the taxable income when the net gain or loss for the year on debt claims, net gains/losses on debt denominated in foreign currency and gains/losses on certain units in certain types of investment funds falling under Section 22 of the Danish Act on Taxation of Capital Gains on Shares (in Danish "*Aktieavancebeskatningsloven*") no. 172 of 29 January 2021 (as amended) in total exceeds DKK 2,000, and, as additional condition for losses on notes admitted to trading on a regulated market, the holding of the notes was timely reported to the Danish Tax Authority in accordance with the Act.

Structured notes

Structured notes can be designed in many ways and with many different underlying assets or in a way that the yield will depend on various index or currency flows. If the notes are considered as structured notes for Danish tax purposes the following tax rules apply.

Gains and losses on structured notes are generally treated as gains and losses on financial instruments in accordance with Section 29(3) of the Act. However, exceptions apply on notes which are alone adjusted in relation to developments in the consumer prices index (as computed by Statistics Denmark (in Danish "*Danmarks Statistik*")), the net consumer-price index or a similar index within the European Union or any of its member states. The gains and losses on financial instruments are calculated irrespective of the rules applying to the underlying asset.

Gains and losses on structured notes issued to both corporate entities and individuals are predominantly treated as taxable income in accordance with a mark-to-market principle, i.e. on an unrealised basis.

Corporate entities are generally able to deduct losses on structured notes, but if the underlying asset is listed shares some limitations may apply. Individuals may only deduct losses on structured notes against gains on other financial instruments. However, in both cases, certain restrictions and exceptions apply.

Pension Funds

Pension funds and other entities governed by the Danish Act on Taxation of Pension Investments Returns (in Danish "*Pensionsafkastbeskatningsloven*"), consolidated act no.12 of January 6, 2023 (as amended) are, irrespective of realization, taxed on the annual increase or decrease on the market value of the Notes according to a mark-to-market principle as specifically laid down in the act.

FINLAND

The following overview relates only to Finnish withholding tax treatment of payments made in respect of the notes to persons who are generally liable to tax in Finland (i.e. persons that are resident of Finland for tax purposes). The overview does not deal with any other Finnish tax implications of acquiring, holding or disposing of the notes. Investors are advised to seek professional advice relating to other tax implications in respect of acquiring, holding or disposing of the notes.

On the basis that the Issuer is not resident in Finland for tax purposes and has no permanent establishment, fixed place of business or presence in Finland, there is no Finnish withholding tax (Fi. *lähdevero*) applicable to the payments made by the Issuer in respect of the notes.

However, Finland operates a system of preliminary taxation (Fi. *ennakonpidätysjärjestelmä*) to secure payment of taxes in certain circumstances. In the context of the notes, a tax of 30% will be deducted and withheld from all payments that are treated as interest or as compensation comparable to interest, when such payments are made by a Finnish Paying Agent to individuals. Any preliminary tax (Fi. *ennakonpidätys*) will be used for the payment of the individual's final taxes (which means that they are credited against the individual's final tax liability).

FRANCE

The following is a general description of the French withholding tax treatment of income from the notes. It does not purport to be a complete analysis of all tax considerations relating to the notes, whether in France or elsewhere. In particular, it does not describe the French tax treatment applicable to holders of notes who are tax residents of France, except in relation to French withholding tax on interest and does not discuss any other French tax such as other French income tax rules, French registration duties or French tax on financial transactions. It applies only to holders who are tax residents in France and who do not hold the notes in connection with a permanent establishment or a fixed base in another State. This overview is based upon the law as in effect on the date of this Base Prospectus, which may be subject to change at any time, possibly with retrospective effect, or to different interpretations. It is not intended to be, nor should it be construed to be, legal or tax advice. Prospective purchasers of the notes should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of the notes and receiving payments of interest, principal and/or other amounts under the notes and the consequences of such actions under the tax laws of France.

Payments of interest (and principal) by the Issuer under the notes may in principle be made without any compulsory withholding or deduction for or on account of French income taxes to the extent that the Issuer is not incorporated in France or otherwise acting through a French establishment.

However, pursuant to Article 125 A of the French tax code and subject to certain exceptions, if the payment of interest and other similar income is made to French resident individuals in connection with the management of their private assets, it would be subject to a 12.8% withholding tax. Social contributions (CSG, CRDS and other related contributions) are also levied by way of withholding tax at an aggregate rate of 17.2% on interest paid to French tax resident individuals.

This withholding tax is levied by the paying agent if it is established in France.

If the paying agent is established outside France, the interest paid are declared, and the corresponding tax paid, within the first 15 days of the month following the interest payment, either by the taxpayer himself, or by the paying agent if established in an EU Member State or European Economic Area member State that has signed a bilateral mutual administrative assistance agreement in tax matters with France, provided that the paying agent has been granted a power of attorney for that purpose by the taxpayer.

This withholding tax does not trigger a discharge of the individual's personal income tax or, where applicable, of the exceptional contribution on high income earners. It constitutes an instalment on account of the taxpayer's final income tax and is creditable against the final personal income tax due by the taxpayer with respect to the year during which it is withheld, the surplus, if any, being refunded to the taxpayer.

GERMANY

The following is a general description of certain German tax considerations relating to the payment of principal and interest in respect of the notes. It does not purport to be a complete analysis of all tax considerations relating to the notes and does not deal with other tax aspects of acquiring, holding or disposing of the notes. It relates only to persons who are the absolute beneficial owners of notes and any related coupons and may not apply to certain classes of holders. In addition, these comments may not apply where interest on the notes is deemed to be the income of any other person for tax purposes. This overview is based upon the law as in effect on the date of this Base Prospectus and is subject to any change in law that may take effect after such date even with retrospective effect. The following is a general guide which is limited to withholding tax issues and should be treated with appropriate caution.

Taxation and its effects depend on the individual circumstances of the taxpayer. Prospective purchasers of notes should, therefore, consult their tax advisers as to the tax consequences of such purchase applicable to their particular situation under the tax laws of the country in which they are resident for tax purposes and under the tax laws of the Federal Republic of Germany and taking into account the final terms.

The Issuer does not assume responsibility for any withholding of taxes at the source.

Tax Residents

Taxation of interest income and capital gains

Payments of interest on the notes to persons who are tax residents of Germany (i.e. persons whose residence, habitual abode, statutory seat, or place of effective management and control is located in Germany) are subject to German income or corporate tax (plus solidarity surcharge (*Solidaritätszuschlag*) at a rate of 5.5% on the respective taxable amount as the case may be, as further described below in the section entitled "Flat Tax Regime". Furthermore, church tax may apply. Such interest may also be subject to trade tax if the notes form part of the assets of a German trade or business.

Capital gains from the disposal, redemption, repayment or assignment of notes held as non-business assets are subject to German income tax and solidarity surcharge. The taxable capital gain will be the difference between the proceeds from the disposition, redemption, repayment or assignment on the one hand and the acquisition and disposal costs on the other hand. Where notes are issued in a currency other than Euro, the disposal proceeds and the acquisition costs each will be converted into Euros using the relevant current exchange rates, so that currency gains and losses will also be taken into account in determining taxable income.

Where a note forms part of the property of a German trade or business generally, each year the part of the difference between the issue or purchase price of the note and its redemption amount (if such amount is fixed at the time of the acquisition) attributable to such year as well as interest accrued must be taken into account as interest income and may also be subject to trade tax.

Withholding Tax

If (i) notes are held in a custodial account which the holder of the notes maintains with a German credit institution or a German financial services institution, each as defined in the German Banking Act (*Gesetz über das Kreditwesen*) (including a German branch of a foreign credit institution or of a foreign financial services institution, but excluding a foreign branch of a German credit institution or a German financial services institution) (a "German Bank") or a German securities trader (*Wertpapierhandelsunternehmen*) or a German securities trading bank (*Wertpapierhandelsbanken*) or one of these entities executes the sale of the Securities and (ii) the relevant entity pays or credits the relevant payments under the notes (a "German Disbursing Agent") and (iii) the respective payments qualify as interest payments on bonds and claims, which are publicly registered or entered into a foreign register or for which collective global notes or partial debentures were issued, or qualify as capital gains from the sale or redemption of coupons, if the linked bonds are not subject to the sale or the redemption, or qualify as capital gains from the sale or redemption of other capital claims within the meaning of sec. 20 para. 1 no. 7 of the German Income Tax Act or qualify as gains arising from forward transactions (*Termingeschäft*) or arising from the sale of a financial instrument which is designed as forward transaction, the German Disbursing Agent would withhold or deduct German withholding tax at a rate of 26.375% (including solidarity surcharge and plus church tax, if applicable).

In case interest payments on bonds and claims, which are publicly registered or entered into a foreign register or for which collective global notes or partial debentures were issued, or proceeds from the sale or redemption of coupons, if the linked bonds are not subject to the sale, or proceeds from the sale or redemption of other capital claims within the meaning of sec. 20 para. 1 no. 7 of the German Income Tax Act are paid out or credited by the debtor or a German Bank to a holder other than a foreign credit institution or foreign financial services institution against handing over of the notes or interest coupons, which are not safe-kept or administered by the debtor or the German Bank ("Over-the-counter Transaction") the aforesaid

institution is obliged to withhold tax at a rate of 26.375% (including solidarity surcharge and plus church tax, if applicable).

Withholding tax will also apply with regard to proceeds from notes held as business assets, provided the requirements as set forth above are met, unless in cases of proceeds deriving from forward transactions (*Termingeschäfte*) or from the sale of the notes (i) the holder of the notes qualifies as corporation being subject to unlimited taxation in Germany or (ii) such proceeds are business income of a German business and the holder of the notes declares this fact to the German Disbursing Agent by ways of an official form.

Flat Tax Regime

Generally for private individuals holding the notes as private assets, withholding taxes levied on income deriving from capital investments (e.g. interest income under the notes and also capital gains) becomes a final flat tax of 25% plus a solidarity surcharge thereon, which is currently levied at 5.5%, resulting in an aggregate tax burden of 26.375%. If the holder of the notes holds the notes with a German Disbursing Agent, then such flat tax will be directly withheld by such German Disbursing Agent (see above section on Withholding Tax). An individual holder may in addition be subject to church tax. For individuals subject to church tax an electronic information system for church withholding tax purposes applies in relation to investment income, with the effect that church tax will be collected automatically by the paying office by way of withholding unless the holder of the notes has filed a blocking notice (*Sperrvermerk*) with the German Federal Central Tax Office (*Bundeszentralamt für Steuern*) in which case the holder of the notes will be assessed to church tax. If church tax has to be taken into account within the withholding tax procedure by the German Disbursing Agent, the flat tax is to be reduced by 25% of the church tax applying to the respective taxable income. Such reduced withholding tax amount is the assessment base for the church tax to be withheld by the German Disbursing Agent. The church tax rate varies between the German federal states. If the income from the notes was not subject to withholding tax, the flat tax is levied in the course of the annual assessment procedure.

Tax Base

The tax base depends upon the nature of the respective income:

With regard to current interest income, the gross interest the resident holder receives is subject to the flat tax upon accrual of the interest.

Regarding the sale or redemption of the notes, the capital gain is calculated on the difference between the proceeds from the redemption, transfer or sale after deduction of expenses directly related to the transfer, sale or redemption and the acquisition costs, if the notes were purchased or sold by the German Disbursing Agent and had been held in a custodial account with such German Disbursing Agent. In case the resident holder transfers the notes to another account, the initial German Disbursing Agent has to inform the new German Disbursing Agent about the acquisition costs of the notes, otherwise 30% of the proceeds from the sale or redemption of the notes are deemed as assessment base for the withholding tax.

The German legislator has introduced new rules regarding the recognition of losses resulting from investments in so called other capital claims within the meaning of sec. 20 para. 1 no. 7 of the German Income Tax Act as well as from forward transactions (*Termingeschäfte*). Where notes qualify as capital claims within the meaning of sec. 20 para. 1 no. 7 of the German Income Tax Act, losses resulting from the total or partial uncollectibility of such claim, from the write-off of worthless claims, from the transfer of worthless claims to a third party or from any other shortfall can only be offset with gains from other capital income (excluding gains from the sale of shares, gains from forward transactions and income from option writer transactions) up to the amount of 20,000 Euro *p.a.*. Losses not offset can be carried forward to subsequent years and can be offset against gains from capital income (excluding gains from forward transactions and income from option writer transactions) in the amount of EUR 20,000 in each subsequent year. It is not entirely clear if and how loss compensation might be recognized at the level of the withholding tax. However, the German fiscal authorities indicate that the loss compensation will only be provided in the course of the individual tax assessment, i.e. withholding tax will be applied without the aforementioned loss

compensation and the individual private investor will have to submit a tax return to have such losses recognized.

Losses from forward transactions can only be offset with gains from forward transactions and income from option writer transactions up to the amount of 20,000 Euro *p.a.*. Losses not offset can be carried forward to subsequent years and can be offset against gains from forward transactions and income from option writer transactions in the amount of EUR 20,000 in each subsequent year if, after the loss offset in the course of the current year an available profit or income remains. Regarding the recognition of losses resulting from forward transaction at the level of the withholding tax, the same considerations apply as outlined in the preceding paragraph, i.e. the German fiscal authorities indicate that the loss compensation will only be provided in the course of the individual tax assessment.

Apart from an annual lump-sum deduction (*Sparer-Pauschbetrag*) for investment type income of EUR 1,000 (EUR 2,000 for married couples and for partners in accordance with the registered partnership law (*Gesetz über die Eingetragene Lebenspartnerschaft*) filing jointly) investors holding the notes as private assets will not be entitled to deduct expenses incurred in connection with the investment in the notes from their income. In addition, such holders could not offset losses from the investment in the notes against other type of income (e.g. employment income).

In general, no withholding tax will be levied if the holder of notes is an individual (i) whose notes do not form part of the property of a German trade or business nor gives rise to income from the letting and leasing of property and (ii) who filed a certificate of exemption (*Freistellungsauftrag*) with the German Disbursing Agent but only to the extent the interest income derived from the notes together with other investment income does not exceed the maximum exemption amount shown on the certificate of exemption. Similarly, no withholding tax will be deducted if the holder of notes has submitted to the German Disbursing Agent a certificate of non-assessment (*Nichtveranlagungsbescheinigung*) issued by the relevant local tax office.

If the notes are not held as private assets but as a business assets, gains relating to a sale, transfer or redemption of the notes and payments of interest are subject to German corporation tax or income tax and in any case trade tax as part of current operating profit. Losses incurred under the notes may only be limited tax deductible.

If the notes are held as business assets, a withholding tax charge will not be a final tax, but might result in a tax credit or refund of the withholding tax.

Non-residents

Non-residents of Germany are, in general, exempt from German income taxation, unless the respective payments qualify as taxable income from German sources within the meaning of section 49 of the German Income Tax Act, e.g. if the notes are held in a German permanent establishment or through a German permanent representative or payments are paid within the scope of an Over-the-counter Transaction or for another reason stipulated in said section 49 of the German Income Tax Act. In this case a holder of the notes will be subject to a limited tax liability in Germany and income tax or corporation tax as the case may be and solidarity surcharge will be levied on the German income. In addition, interest income and capital gains will be subject to trade tax if the notes belong to a German permanent establishment of the holder.

Generally, German withholding taxes may be levied, even if the right to tax the income is, e.g. due to a double taxation treaty, not with Germany if the further conditions set out above are met. However, under certain conditions, the investor in the notes may be eligible for a full or partial refund.

Under certain circumstances non-residents may benefit from tax reductions or tax exemptions under double tax treaties, if any, entered into with Germany.

Furthermore, pursuant to the German Defense Against Tax Haven Act (*Gesetz zur Abwehr von Steuervermeidung und unfairem Steuerwettbewerb* – "GDATHA") income generated, inter alia, from financial relationships is subject to a German withholding tax if the creditor of such financial relationships is

resident in a non-cooperative tax jurisdiction included on the EU list of non-cooperative tax jurisdictions published in the Official Journal of the European Union, as amended from time to time. However, notes represented by a global certificate and held in collective safe custody with a disbursing agent as well as debt instruments comparable to such notes, are expressly excluded from the aforementioned German withholding tax. Since there are currently neither official guidelines from the German Ministry of Finance and/or the German tax authorities nor court rulings on the interpretation of the term "financial relationships" (*Finanzierungsbeziehungen*) and the applicable exemptions available, it should be monitored whether payments under notes or other financial instruments to holders resident in non-cooperative tax jurisdictions pursuant to the GDATHA are or might be subject to a German withholding tax deduction.

Other Taxes

No stamp, issue, registration or similar taxes or duties will be payable in Germany in connection with the issuance, delivery or execution of the notes. Net assets tax (*Vermögensteuer*) is currently not levied in Germany.

International Exchange of Information

Based on the so-called OECD Common Reporting Standard, the states which have committed themselves to implement this standard ("Participating States") exchange potentially taxation-relevant information about financial accounts which an individual holds in a Participating State other than his country of residence. This procedure commenced in 2017 with information for the year 2016. The same applies for the member states of the European Union. Due to an extension of Directive 2011/16/EU on administrative cooperation in the field of taxation (the "Mutual Assistance Directive"), the member states exchange financial information on notifiable financial accounts of individuals which are resident in another member state of the European Union.

So far, the exchange of information on savings interest income was mainly regulated by the EU Council Directive 2003/48/EC on taxation of savings income (the "EU Savings Directive"). The EU Savings Directive provided for an exchange of information between authorities of the member states regarding interest payments and equivalent payments by paying offices of a member state to a private individual with domicile for tax purposes in another member state. In order to prevent an overlap between the EU Savings Directive and the amended Mutual Assistance Directive, with effect as of 1 January 2017 (in Austria) or 1 January 2016 (in all other member states), respectively, the EU Savings Directive was repealed (subject to ongoing requirements to fulfil administrative obligations such as the reporting and exchange of information relating to, and accounting for withholding taxes on payments made before those dates).

A number of non-EU countries and certain dependent or associated territories of certain member states have adopted measures which are similar to the EU Savings Directive (either provision of information or transitional withholding). These measures apply until further amendments to the OECD Common Reporting Standard and the amended Mutual Assistance Directive, respectively. Due to the current efforts to waive the application of the EU Savings Directive in these cases, this only applies in exceptional circumstances.

In Germany, the amended Mutual Assistance Directive and the OECD Common Reporting Standard were implemented by the Act on the Exchange of Financial Accounts Information (*Finanzkonten-Informationsaustauschgesetz – FKAustG*) which became effective as of 31 December 2015.

Prospective holders of the notes are advised to consult their own tax advisors in relation to the further developments.

HUNGARY

The following is a brief overview of Hungarian tax aspects in connection with the notes. The below overview does not fully describe all tax consequences of the acquisition, ownership, disposition or redemption of the notes. This overview only discusses the tax laws of Hungary as in force on 22 March, 2022 and based on the individual circumstances a different tax regime may apply. As under the Program different types of notes may be issued, the tax treatment of such notes can be different due to their specific terms. This overview does not take into account the investors' individual circumstances.

Prospective investors are advised to consult their own professional advisors to obtain further information about the tax consequences of the acquisition, ownership, disposition, redemption, exercise or settlement of any of the notes.

It cannot be excluded that Hungarian tax authorities or courts or the Hungarian Payers (as defined below) adopt a view different from that outlined below.

Income Taxation of Private individuals

Withholding (Income) Tax

Unless otherwise provided for in the applicable convention on the avoidance of double taxation between Hungary and another State where the private individual has its tax residency, the income of a private individual is subject to Hungarian personal income tax, which is generally withheld in the form of withholding tax. A private individual is subject to withholding taxation of certain capital incomes if such capital income is paid to the private individual taxpayer by a legal person, other organization, or private entrepreneur resident in Hungary that (who) provides taxable income, irrespective of whether such payment is made directly or through an intermediary (post office, credit institution) (a "Hungarian Payer"). The general rate of the withheld income tax is 15%.

- In respect of interest, Hungarian Payer shall mean the person who pays any interest income to any natural person according to the Personal Income Tax Act, the borrower of a loan or the issuer of a bond.
- In respect of dividends, Hungarian Payer shall mean the taxpayer from whose assets such dividends are paid.
- In respect of revenues originating from a transaction concluded with the involvement of a licensed stockbroker, Hungarian Payer shall mean such stockbroker (consignee).
- In respect of income that is earned in a foreign country and taxable in Hungary, Hungarian Payer shall mean the person (legal person, other organization, or private entrepreneur) commissioned in Hungary, with the exception of transaction orders given to a credit institution solely for the performance of a transfer (payment).
- In respect of any taxable payment made by a non-resident company through its branch or commercial representation, such branch or commercial representation shall be considered a Hungarian Payer.

As long as the Issuer is not a Hungarian Payer, the Issuer is not liable for the withholding of taxes and the recipient of the income has to pay and declare taxes and social security contributions (if any) fully on his/her own.

The income tax also applies if the private individual is not a Hungarian tax resident, i.e., is generally not subject to Hungarian income tax but the income is deemed to originate from Hungary.

The income tax most notably applies to the following kinds of income, each defined or detailed further in Act CXVII of 1995 on Personal Income Tax (the "Personal Income Tax Act"):

- interest income,
- income from securities lending,
- dividend income,
- capital gains income,

- profit realized by swaps,
- controlled capital market transactions, and
- transactions with crypto assets.

However, whether an income tax is actually applicable to a certain income, the exact details of the security, the income payment and the tax subject (holder of the security) shall be examined. Incomes which do not fit into the definitions of these incomes belong to the general tax base of private individuals, which is taxed at the same level of personal income tax but is generally subject to social contribution burden.

Interest Income

"Interest income" shall mean the following (narrowed for the purposes of this Base Prospectus):

(a) in case of the balance of any deposit account (savings deposit account), or payment account, the part of the interest credited and/or capitalised based on a contract (including standard service agreements and interest conditions) made between the private individual and a payment service provider that is not in excess of the fair market value;

(b) in connection with debt securities and collective investments in transferable securities, which are offered and traded publicly:

(i) the income paid to the private individual under the title of interest and/or yield, due to the fact that the securities are held at a specific time prescribed as a precondition for entitlement to interest and/or yield,

(ii) the gains achieved when called, redeemed, or transferred, not including the transfer of collective investments in transferable securities in an exchange market, or in a market of another EEA Member State or in a Member State of the OECD from the income payable to the private individual - irrespective of the net current value, accumulated interest or yield it represents - to the extent established according to the provisions on capital gains; and

(c) by way of derogation from paragraphs (a)-(b) directly above, if the interest income established according to paragraphs (a)-(b) represents any asset (e.g., securities) from which the tax cannot be deducted, the taxable amount shall be calculated by multiplying the fair market value of the asset by 1.18.

The legal title of tax liability in connection with any interest income not mentioned in paragraphs (a)-(c) above and Section 65 (1) of the Personal Income Tax Act or that is obtained by way of derogation from the conditions defined therein shall be determined in consideration of the contract between the parties affected (meaning the natural person and the person paying the interest income, or between these persons and a third party), and the relating tax liabilities of the payer or the private individual shall be satisfied accordingly (including, in particular, the assessment, payment and declaration of income, tax amount, tax advance, and the related disclosures).

As a main rule, the tax authority will prepare a tax return for individuals if interest income is received. However, given that in lack of a Hungarian Payer, the tax authority does not gain knowledge of the interest income, the private individual will be required to at least supplement the tax return prepared by the tax authority, submit it, and pay it before the deadline prescribed for filing. The rate of the tax is 15%.

In case of qualifying long-term investments ("*tartós befektetés*"), interest income shall be free of tax if the private individual does not interrupt the deposit period of five years.

Securities Lending Fee

The entire fee of securities lending acquired by the private individual shall qualify as taxable income. The Hungarian Payer shall establish, deduct and pay the tax, the amount of which is 15%.

Profit Realized on Swaps

Profit realized on swaps shall mean the part of the proceeds received by a private individual in a tax year in connection with interest-rate, currency and equity swaps (swap receipts) that is in excess of the expenses (swap expenses) the private individual has incurred and verified as directly related to the transaction in question (profit realized on swaps). Any sum of swap expenses that is in excess of swap receipts shall be treated as a loss realized on swaps.

Profits and/or losses realized on swaps:

(a) shall be determined by the Hungarian Payer at the end of the tax year separately for each transaction, and they shall supply a certificate to the private individual affected by 31 January of the year following the tax year broken down according to transactions, and shall disclose such information to the National Tax and Customs Authority in accordance with the Act on the Rules of Taxation and/or any provisional rules implemented under a state of emergency; and

(b) shall be recorded by the private individual in the absence of a Hungarian Payer.

The legal title of the income and the amount of tax liability shall be determined in consideration of the contract between the parties affected (meaning the private individual to whom the income was paid and the other party to the transaction, or between these persons and a third party) and the circumstances under which the income was obtained if it is established that the private individual arranged the transaction in a way to make a profit without any real risk, by setting conditions in derogation from the market price, exchange rates, interest rates, fees and other factors.

In connection with the profit realized on swaps, the Hungarian Payer is not subject to the obligation of tax deduction. The private individual affected shall assess the profit realized on swaps and the tax payable on such income following the end of the tax year separately for each transaction, and shall declare them in his tax return filed for the tax year, and shall pay the tax by the deadline prescribed for filing tax returns.

If a swap is carried over to the next tax year, and if the private individual realizes any loss on this swap that covers such carried over period (as well), and indicates this loss separately for each transaction in his tax return filed for the tax year when the loss was realized, the private individual shall be entitled to tax compensation that may be claimed as tax paid in the tax return.

Tax compensation shall be established separately for each transaction on an annual basis, cumulatively (carried over) under the duration of the transaction, supported by regularly updated bookkeeping records (see Section 65/B (9) of the Personal Income Tax Act).

Dividend Income

All revenues of private individuals received as dividends or dividend advance shall be considered income. For the purposes of this Prospectus:

(a) dividend shall mean dividend as defined by Hungarian accounting rules and also (among others):

(i) interest on interest-bearing shares;

(ii) income specified as dividends by the laws of other countries;

(iii) return on investment units issued by an alternative investment fund;

(iv) the payment made by the trustee to the private individual beneficiary or settlor from the yields of the trust assets, based on a Hungarian trust deed; (unless the beneficiary obtained such status as consideration for or related to an activity, transfer of assets or provision of services), it shall be assumed that yields are

acquired before capital from the trust assets, if yield and capital cannot be separately identified, the entire amount obtained by the private individual shall be regarded as dividend;

(v) payment as a share from its profits by a small taxpayer company to its shareholder not notified as a small taxpayer;

(b) dividend advance shall mean any prepayments of dividends made on the dividend estimated for the tax year;

(c) the tax on dividends (dividend advances) shall be assessed by the Hungarian Payer:

(d) including resident credit institutions and investment service providers, in connection with any payment (credit) of dividend (dividend advance) earned abroad to a private individual through the securities account (securities escrow account) it maintains on behalf of that private individual;

(e) in due consideration of the rules on inability to deduct withholding tax and of the special rules of taxation applicable to the income of foreign nationals laid down in Act on Personal Income Tax;

at the time of payment, and shall be declared and paid.

As a main rule, the tax authority will prepare a tax return for individuals if dividend income is received. In the case of dividend income, if there is no Hungarian Payer involved, the tax in connection with the dividend is not assessed by the tax authority. Given the fact that in lack of a Hungarian Payer, the tax authority does not gain knowledge of the dividend income, the private individual will be required to at least supplement the tax return if prepared by the tax authority with respect to other kind of income of the private individual (e.g. receives salary from Hungarian employer), submit it, and pay it before the deadline prescribed for filing. The amount of dividend advance and the tax shall be indicated for information purposes in the tax return filed for the year when the payment was made, and the amount of dividend paid as approved, and the tax deducted shall be declared in the tax return filed for the year when the resolution establishing the dividend was approved, and shall show the tax deducted and paid from the dividend advance as tax deducted.

Capital Gains Income

"Income from capital gains realized" shall mean the proceeds received upon the transfer of securities (not including lending arrangements), less the purchase price of the securities and any incidental costs associated with the acquisition of the securities. Any portion of the said profit that is to be treated as part of some other type of income shall not be considered as a capital gain.

The Hungarian Payer shall assess the amount of income realized from the revenues, the tax and tax advance corresponding to the legal title of the income relying on the data and information at its disposal on the day of payment or that can be obtained, or as verified by the private individual relating to acquisition costs and the incremental costs, and shall declare and pay it in accordance with the Act on the Rules of Taxation and the Personal Income Tax Act. As a main rule, the tax authority will prepare a tax return for individuals if they realize capital gains income. In the case of capital gains, even if there is no Hungarian Payer involved, the tax is assessed by the tax authority in the tax return. However, given the fact that in lack of a Hungarian Payer, the tax authority does not gain knowledge of the dividend income, the private individual will be required to at least supplement the tax return prepared by the tax authority, submit it, and pay it before the deadline prescribed for filing.

Private individuals shall include in their tax returns, in the total of their income from capital gains realized during the tax year, or by way of self-assessment of their tax returns, that part of the purchase price of securities and the incremental costs associated with the securities that the payer did not take into account when determining income.

Controlled Capital Market Transactions

In case of income from controlled capital market transactions, no tax is withheld, however, if the Hungarian Payer of such income is an investment service provider, it shall report certain income information to the Hungarian tax authority. The tax rate on the income is 15%.

Income from controlled capital market transactions means the profit realized on controlled capital market transaction(s) the private individual has made during the tax year (not including interest income, or if income from long-term investments has to be established based on the transaction), and received in money from all such transactions (total profit realized on transactions) that is in excess of the total losses the investment service provider has charged to the private individual in connection with a given transaction or transactions, and paid during the tax year (total loss realized on transactions). Losses on controlled capital market transactions shall include the sum of total loss realized on transactions that is in excess of the total profit realized on transactions.

Controlled capital market transaction shall mean any transaction concluded with an investment service provider, or with the help of an investment service provider—other than swaps—involving financial instruments (other than privately placed securities) or commodities, as well as spot transactions concluded within the framework of financial services, or within the framework of investment services and ancillary investment services involving foreign exchange or currency, where such deals are concluded by financial settlement and, in either case, if they satisfy the provisions of the said acts pertaining to transactions, except for the transactions where a price - other than the fair market value - is used as specified by the investment service providers customer and/or the parties he represents (a private individual, and/or any person closely linked to one another by their common interests, directly or otherwise), and

(a) if executed within the framework of activities supervised by the Hungarian National Bank (HNB),

(b) that is concluded with an investment service provider, or with the help of an investment service provider, operating in the money markets of any EEA Member State, or any other State with which Hungary has an agreement on double taxation, and

  (i) if executed within the framework of activities supervised by the competent authorities of that State, and

  (ii) if the given State is not an EEA Member State, there are facilities in place to ensure the exchange of information between the competent authorities mentioned above and the HNB, and

  (iii) for which the private individual has a certificate made out by the investment service provider to his name, containing all data and information for each and every transaction concluded during the tax year for the assessment of his tax liability.

If the income originates from investment service providers who qualify as a payer the payer issues a detailed certificate of execution on the cleared transactions of the given tax year. The private individual may use this certificate to declare this income in his tax return filed for the tax year, and shall pay the tax by the deadline prescribed for filing tax returns. The private individual may also declare his income on the basis of his own records (instead of the certificate).

If the income originates from investment service providers who do not qualify as payer, the private individual affected shall assess—in accordance with the provisions on capital gains as well—the profit realized on such controlled capital market transaction(s) and the tax payable on such income relying on the documents (certificates of execution) made out by the investment service provider or on his own records, and shall declare them in his tax return filed for the tax year, and shall pay the tax by the deadline prescribed for filing tax returns.

If the private individual realized any loss in connection with a controlled capital market transaction during the tax year and/or during the year preceding the current tax year, and/or in the two years preceding

the current tax year, and if this loss is indicated in his tax return filed for the year when the loss was realized, the private individual shall be entitled to tax compensation that may be claimed as tax paid in the tax return.

Transactions with crypto assets

In case of income from transactions with crypto assets (as defined), specific rules apply and no tax is withheld. The private individual affected shall calculate the profit realized on such transaction(s) and the tax payable, and shall declare them in his tax return filed for the tax year, and shall pay the tax by the deadline prescribed for filing tax returns.

A 'transaction with crypto assets' shall mean transactions where the private individual acquires valuable consideration not in the form of crypto assets, through the transfer, assignment of crypto assets (including the exercise of rights granted by the crypto asset), in a transaction which is available, concludable for anyone. Crypto asset shall mean the digital representation of value or rights which can be electronically transferred and stored by using the distributed ledger technology or other similar technology. Special rules for the carry forward and carry backward of losses apply and are conditional on including the amount of gains and losses in the relevant tax returns.

Exceptions

A withholding tax obligation may also be created or cease due to a convention on (the avoidance of) double taxation, between Hungary and another State. The tax obligation may cease if the notes are held as long-term investment and further requirements are met.

Valuable Consideration Obtained in the Form of Securities

In connection with any valuable consideration obtained by a private individual in the form of securities, income shall mean the fair market value of the security prevailing at the time of acquisition of the security, less the verified cost (value) of the security and any incremental costs associated with it. The type of tax liability attached to this income shall be determined on the basis of the relationship between the parties concerned (the private individual and the person from whom the security originates, and the said persons and a third party) and the circumstances under which the income was obtained, and the ensuing tax liabilities prescribed upon the payer or the private individual in question (including, in particular, the assessment, payment and declaration of income, tax amount, tax advance, and the related disclosures) shall be satisfied accordingly.

Among other cases, the valuable consideration obtained by a private individual in the form of securities shall not be treated as income if the private individual

(a) obtained the security in question through exercising a right that was obtained in a transaction offering equal conditions to all parties concerned; or

(b) has obtained the shares from another private individual by means of a contract with mutual consideration, provided that the amount (value) of consideration reaches the nominal value of shares, or, where there is no nominal value, their accountable par from the issuers subscribed capital; without prejudice to the applicability of other provisions on tax exemptions.

The tax rate is 15% but the specific taxation on income depends on the relationship between the parties concerned.

Valuable Consideration Obtained by Way of Rights in Securities

If income is not realized from profits made by means of controlled capital market transactions, the following rules shall apply:

As regards the valuable consideration obtained through the transfer (assignment), termination, endorsement of the purchase, subscription, sale or other similar right in securities (exclusive of rights attached to other securities) or through the waiver of such right, from the proceeds received by the private

individual the margin above the costs charged, as verified, to the private individual in connection with the acquisition of the right and the incremental costs associated with the transaction (in connection with a gratuitous or complimentary right, including any income that is deemed taxable at the time the right is acquired). The amount of income shall be assessed as on the day when received.

In connection with securities obtained by way of a purchase, subscription or other similar right in securities, the private individual obtaining them shall be subject to the provisions pertaining to valuable considerations obtained in the form of securities. In this case the date of the acquisition of income shall be determined as the date of the acquisition of the right of control over the security or the date when the private individual (or any other person acting on his behalf) takes possession of the security in question (including, in particular, when the security is credited to the securities account), whichever occurs earlier.

As regards the valuable consideration obtained through the exercise of a sale option or other similar right in securities, that part of the income defined on the basis of the obtained valuable consideration that is greater than the fair market value of the security that is effective on the day of transfer (income component for the exercise of the right in question), less the costs charged, as verified, to the private individual (in connection with a gratuitous or complimentary right, including any income that is deemed taxable at the time the right is acquired) shall be treated as income, with the exception that:

(a) the amount of income from the remaining part of the proceeds received in connection with the transfer of the security shall be determined in compliance with the provisions on capital gains, with due consideration of what is contained in paragraph (b);

(b) where paragraph a) applies, the part of the costs charged to the private individual in connection with the acquisition of the right may be deducted from the proceeds mentioned therein under the title of transfer costs, that is in excess of the proceeds from the exercise of the option. The amount of income shall be assessed as on the day of transfer of the security in question.

The tax rate is 15%.

Social contribution tax

According to Act LII of 2018 on Social Contribution Tax, social contribution tax is payable until the aggregate amount of a natural person's certain incomes reaches twenty-four times the mandatory monthly minimum wage, the monthly minimum wage being 232,000 Hungarian Forints in 2023.

Social contribution tax has to be paid inter alia related to

- *the income from securities lending;*
- *the dividend income; and*
- *the capital gains income.*

However, it does not have to be paid inter alia related to

- *the interest income;*
- *the profit realised on swaps; and*
- *the controlled capital market transactions.*

The tax rate is 13%.

Corporate Income Tax

Generally, with the exception of special cases, legal entities and Hungarian ring-fenced trust assets are not subject to any corporate income tax withholding in connection with capital gains (interest, dividend and return on security sales revenues) on the basis of Act LXXXI of 1996 on Corporate Income Tax.

The corporate income tax rate is 9% of the positive tax base.

Hungarian implementation of Directive 2014/107/EU on Administrative Cooperation

Based on Directive 2014/107/EU amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation ("Directive"), Hungary implemented the renewed rules on the EU network of exchanging tax information, which includes the removal of the legislation due to the repeal of the EU Savings Directive and the implementation of new legislation in line with the new Directive.

The main implementation of the Directive under Hungarian law is Act XXXVII of 2013. Based on the new rules the tax authority collects a broad range of data of the owners of financial accounts from financial institutions including identification data of the financial account, identification data of the account owner, the name of the country or countries of which the owner is a resident, and the balance of the account.

The tax authority is entitled to request data from the central registration of beneficial ownership information and to have access to the data and documents in respect of the beneficial owner in order to control if the financial institutions met their obligation of due diligence and data providing, and to provide information to other member state on request.

The Directive provides for the exchange of information in three forms – spontaneous, automatic and on request. In the framework of the automatic exchange of information Hungary automatically provides data relating to the financial account and its owner to the other member state or third country where the owner is a resident.

This form of exchange is usually in electronic form and usually on a mutually agreed periodic basis. Information exchange on request is a response by one country to a request by another country for information.

Inheritance duty

If a private investor deceases, the inheritance may be subject to inheritance duty ("*öröklési illeték*"). Inheritance duty is applicable to the assets within Hungary; as well as the moveable assets inherited by a Hungarian citizen/resident/legal person if such assets are not subject to inheritance in the country of their location.

The base for such inheritance duty is the clear value of the acquired assets (i.e., after the deduction of defined liabilities). The general duty rate is 18%.

Inheritance of the deceased investor's lineal relatives (parents, grandparents, children, grandchildren etc., including where relationship is based on adoption), siblings and surviving spouse is free of inheritance duty.

Gift duty

The free transfer of the notes is subject to gift duty payable by the receiving party. The base for the duty is the value of the gift. The general duty rate is 18%.

The following (among others) are not subject to gift duty:

- gift in the value not exceeding HUF 150,000 in market value if no document was made;
- gift acquired by the donor's lineal relatives (parents, grandparents, children, grandchildren etc., including where relationship is based on adoption), siblings and surviving spouse;
- the transfer of assets to a trustee notified as such to the tax authority, under a trust deed established pursuant to the Civil Code, unless the trustee acquires it as a beneficiary; and
- the acquisition of the trust assets and its yield by the settlor (even as a beneficiary).

Financial transaction duty

Hungarian payment service providers are obliged to pay financial transaction duty for each crediting on Hungarian bank accounts. The general rate of the duty is 0.3% of the transferred amount but the maximum of HUF 6,000. The financial transaction duty on physical cash withdrawal is taxed at 0.6% and is not capped. Thus, crediting of the proceeds of the notes to Hungarian bank accounts may be subject to additional banking fees if the payment service providers charge such duty to the clients directly.

IRELAND

The following comments are of a general nature, relating only to the position of persons who are the absolute beneficial owners of the notes. The following is a general overview only of the Irish withholding tax treatment on the date of this Base Prospectus in relation to income payments in respect of the notes. This overview is based on Irish law and what is understood to be the practice of the Irish Revenue Commissioners, in each case as in effect on the date of this Base Prospectus, which are subject to prospective or retroactive change. The comments are not exhaustive and do not deal with any other Irish tax aspects of acquiring, holding, disposing of, abandoning, exercising or dealing in the notes. Prospective investors in the notes should consult their own advisors as to the Irish tax consequences of acquiring, holding, disposing of, abandoning, exercising or dealing in the notes.

Irish Withholding Tax On Interest Payments

Irish interest withholding tax should not apply to interest payments which have their source outside Ireland. On the basis that the Issuer is not resident in Ireland and has no presence in Ireland, that no interest payments will be made from Ireland, that no Irish situate assets will be secured and that the notes will not be deposited with an Irish depositary, interest payments on the notes should not have an Irish source and, thus, no Irish interest withholding tax should arise.

Irish Withholding Tax On Annual Payments

Irish withholding tax can also apply to payments, other than interest payments, which are annual payments for Irish tax purposes. However, Irish withholding tax should not apply to annual payments which have their source outside Ireland. On the basis that the Issuer is not resident in Ireland and has no presence in Ireland, that no payments will be made from Ireland, that no Irish situate assets will be secured, and that the notes will not be deposited with an Irish depositary, any annual payments on the notes should not have an Irish source and, thus, no Irish withholding tax should arise on such payments.

Irish Encashment Tax

Irish encashment tax may be required to be withheld at the current rate 25% from any interest payments or annual payments paid in respect of the notes where such payments are paid or collected by a person in Ireland on behalf of any holder of the notes. Holders of the notes should therefore note that the appointment of an Irish collection agent or an Irish paying agent could result in the deduction of 25% encashment tax by such agent from interest payments or annual payments on the notes. A holder of the notes that is not resident in Ireland for tax purposes may claim an exemption from this form of withholding tax by submitting an appropriate declaration of non-Irish tax residency to the Irish agent.

ITALY

The following is a general description of certain Italian tax consideration relating to the notes. It specifically contains information on taxes on income from the notes withheld at source. It does not in any way constitute, nor should it be relied upon as being, a tax advice or a tax opinion covering any or all of the relevant tax considerations surrounding or connected to the notes. It does not purport to be a complete analysis of all tax considerations that may be relevant to a decision to purchase, own or dispose of the notes and does not purport to deal with the tax consequences applicable to all categories of prospective beneficial owners of the notes, some of which may be subject to special rules. Prospective purchasers should be aware that tax treatment depends on the individual circumstances of each client: as a consequence they should consult their tax advisers as to the consequences under Italian tax law and under the tax laws of the country in which they are resident for tax purposes and of any other potentially relevant jurisdiction of acquiring, holding and disposing of notes and receiving payments of interest, principal and/or other amounts under the notes, including in particular the effect of any state, regional or local tax laws. This overview is based upon Italian tax laws as in effect as of the date of this Prospectus.

This section does not address the potential tax consequences of the U.S. Foreign Account Tax Compliance Act for Italian resident noteholders. A FATCA withholding may affect payments on the notes.

Italian Tax Treatment of the Notes

Interest deriving from the Notes

Notes having 100% capital reimbursement

Italian Resident Investors

Legislative Decree No. 239 of 1 April 1996, as a subsequently amended, (the "Decree No. 239") provides for the applicable regime with respect to the tax treatment of interest, premium and other income (including the difference between the redemption amount and the issue price) from notes falling within the category of bonds (*obbligazioni*) or debentures similar to bonds (*titoli similari alle obbligazioni*) issued, *inter alia*, by non-Italian resident issuers.

For these purposes, debentures similar to bonds are defined as bonds that incorporate an unconditional obligation to pay, at maturity, an amount not less than their nominal value (whether or not providing for interim payments) and that do not give any right to directly or indirectly participate in the management of the relevant issuer or of the business in relation to which they are issued nor any type of control on the management.

Where an Italian resident investor is:

(a) an individual not engaged in a commercial activity (*esercizio di attività commerciali*) to which the notes are connected (unless he has opted for the application of the *risparmio gestito regime* – as described below);

(b) a non-commercial partnership pursuant to Article 5 of the Presidential Decree No. 917 of 22 December 1986, ("TUIR") (with the exception of general partnerships, limited partnerships and similar entities);

(c) a public or private entity (other than a company) or a trust not carrying out a commercial activity; or

(d) an investor exempt from Italian corporate income taxation;

interest, premium and other income (including the difference between the redemption amount and the issue price), relating to the notes, accrued during the relevant holding period, are subject to a withholding tax

equal to 26%, referred to as *imposta sostitutiva*. In the event that the investors described above are engaged in a commercial activity (*esercizio di attività commerciali*) to which the notes are connected, the *imposta sostitutiva* applies as a provisional tax and may be deducted from the final income tax due by the relevant investor.

Subject to certain limitations and requirements (including a minimum holding period), Italian resident individuals not acting in connection with an entrepreneurial activity or social security entities pursuant to Legislative Decree No. 509 of 30 June 1994 and Legislative Decree No. 103 of 10 February 1996 may be exempt from any income taxation, including the *imposta sostitutiva*, on interest relating to the notes if the notes are included in a long-term savings account (*piano individuale di risparmio a lungo termine*) that meets the requirements set forth in Article 1(100-114) of Law No. 232 of 11 December 2016 (the "Finance Act 2017"), as amended and supplemented from time to time.

Where an Italian resident investor is a company or similar commercial entity pursuant to Article 73 of TUIR or a permanent establishment in Italy of a non-Italian-resident entity – to which the notes are effectively connected – and the notes are deposited with an authorized intermediary, interest, premium and other income from the notes will not be subject to *imposta sostitutiva*, but must be included in the relevant investor's income tax return and are therefore subject to general Italian corporate taxation ("IRES", currently levied at the rate of 24% which is increased by 3.5% for banks and certain financial intermediaries) and, in certain circumstances, depending on the "status" of the investor, also to regional tax on productive activities ("IRAP", generally levied at the rate of 3.9%, even though regional surcharges may apply).

Under the current regime provided by Law Decree No. 351 of 25 September 2001, converted into law with amendments by Law No. 410 of 23 November 2001, payments of interest in respect of the notes made to Italian resident real estate investment funds established pursuant to Article 37 of Legislative Decree No. 58 of 24 February 1998, as amended and supplemented, and Article 14-bis of Law No. 86 of 25 January 1994 are subject neither to *imposta sostitutiva* nor to any other income tax in the hands of a real estate investment fund. A withholding tax may apply in certain circumstances at the current rate of 26% on distributions made by real estate investment funds. The same tax regime applies to payments of interest made to an Italian resident SICAF mainly investing in real estate assets and governed by Legislative Decree No. 44 of 4 March 2014.

If an investor is resident in Italy and is an open-ended or closed-ended investment fund (the "Fund") or a SICAV, and the notes are deposited with an authorized intermediary, interest, premium and other income accrued during such investor's holding period will not be subject to *imposta sostitutiva*. A withholding tax may apply in certain circumstances at the current rate of 26% on distributions made by the Fund or the SICAV to certain categories of investors. The same tax regime applies to payments of interest made to an Italian resident SICAF not mainly investing in real estate assets and governed by Legislative Decree No. 44 of 4 March 2014.

Where an Italian resident investor is a pension fund (subject to the regime provided for by article 17 of the Legislative Decree No. 252 of 5 December 2005, as subsequently amended) and the notes are deposited with an authorized intermediary, interest (including the difference between the redemption amount and the issue price), premium and other income relating to the notes and accrued during the holding period will not be subject to *imposta sostitutiva*, but must be included in the result of the relevant portfolio accrued at the end of the tax period, to be subject to the special 20% substitute tax applicable to Italian pension funds. Subject to certain conditions (including minimum holding period requirement) and limitations, Interest relating to the notes may be excluded from the taxable base of the 20% substitute tax if the notes are included in a long-term savings account (*piano individuale di risparmio a lungo termine)* that meets the requirements set forth in Article 1 (100-114) of Finance Act 2017, as amended and supplemented from time to time.

Pursuant to Decree No. 239, *imposta sostitutiva* is applied by banks, *società di intermediazione mobiliare* ("SIMs"), fiduciary companies, *società di gestione del risparmio*, stockbrokers and other entities identified by a decree of the Ministry of Economics and Finance (each an "Intermediary").

For the Intermediary to be entitled to apply the *imposta sostitutiva*, it must (i):

(a) be resident in Italy;

(b) be resident outside Italy, with a permanent establishment in Italy; or

(c) be an entity or a company not resident in Italy, acting through a system of centralised administration of securities and directly connected with the Department of Revenue of the Italian Ministry of Finance having appointed an Italian representative for the purposes of Decree No. 239;

and (ii) intervene, in any way, in the collection of interest or in the transfer of the notes. For the purpose of the application of the *imposta sostitutiva*, a transfer of notes includes any assignment or other act, either with or without consideration, which results in a change of the ownership of the relevant notes or a transfer of the notes to another deposit or account held with the same or another Intermediary.

Where the notes are not deposited with an Intermediary, the *imposta sostitutiva* is applied and withheld by any entity paying interest to an investor. If interest and other proceeds on the notes are not collected through an Intermediary or any entity paying interest and as such no *imposta sostitutiva* is levied, the Italian resident beneficial owners listed above under (a) to (d) will be required to include interest and other proceeds in their yearly income tax return and subject them to a final substitute tax at a rate of 26%. The Italian individual investor may elect instead to pay ordinary personal income tax ("IRPEF") at the applicable progressive rates in respect of the payments; if so, the investor should generally benefit from a tax credit for withholding taxes applied outside of Italy, if any.

Non-Italian Resident Investors

No Italian *imposta sostitutiva* is applied on payments to a non-Italian resident investor of interest relating to the notes provided that, if the notes are held in Italy, the non-Italian resident investor declares itself to be a non-Italian-resident according to Italian tax regulations.

Notes qualifying as atypical securities (notes not having 100% capital reimbursement)

In case notes representing debt instruments implying a "use of capital" do not guarantee the total reimbursement of the principal, under Italian tax law they should qualify as "atypical securities" (*titoli atipici*).

For notes issued by a non-Italian-resident Issuer, a 26% withholding tax may apply in Italy if the notes are placed (*collocate*) in Italy and interest payments on the notes are collected through an Italian bank or other qualified financial intermediary. However, such 26% withholding tax does not apply to interest payments made:

- to a non-Italian-resident noteholder. If notes issued by a non-Italian resident Issuer and beneficially owned by non-Italian residents are deposited with an Italian bank or other resident intermediary (or permanent establishment in Italy of foreign intermediary) or are sold through an Italian bank or other resident intermediary (or permanent establishment in Italy of foreign Italy of foreign intermediary) or in any case an Italian resident intermediary (or permanent establishment in Italy of foreign intermediary) intervenes in the payment of interest and other income on such notes, to ensure payment of interest and other income without application of Italian taxation a non-Italian- resident Noteholder may be required to produce to the Italian bank or the relevant intermediary a self-declaration stating that he, she or it is not resident in Italy for tax purposes; and

- to an Italian resident noteholder which is (i) a company or similar commercial entity (including the Italian permanent establishment of foreign entities to which the Notes are effectively connected), (ii) a commercial partnership, or (iii) a commercial private or public institution.

In case notes issued by a non-Italian resident issuer are held by an Italian resident individual engaged in a business activity and are effectively connected with same business activity, the interest and other income will be subject to the 26% ''entrance'' withholding tax on a provisional basis and will be

included in the relevant income tax return. As a consequence, the interest and other income will be subject to the ordinary income tax and the withholding tax may be recovered as a deduction from the income tax due.

Capital Gains

Italian Resident Investors

Any gain obtained from the sale or redemption of the notes would be treated as part of the taxable income (and, in certain circumstances, depending on the "status" of the investor, also as part of the net value of production for IRAP purposes) if realized by: (i) an Italian resident company; (ii) an Italian resident commercial partnership; (iii) the Italian permanent establishment of foreign entities to which the notes are effectively connected; or (iv) Italian resident individuals engaged in a commercial activity (*esercizio di attività commerciali*) to which the notes are connected.

Where an Italian resident investor is an individual not holding the notes in connection with an entrepreneurial activity, any capital gain realized by such investor from the sale or redemption of the notes would be subject to an *imposta sostitutiva*, levied at the current rate of 26%. Under some conditions and limitations, investors may set off losses with gains. This rule applies also to certain other entities holding the notes. In respect of the application of the *imposta sostitutiva*, taxpayers may opt for one of the three regimes described below.

Under the tax declaration regime (*regime della dichiarazione*), which is the ordinary regime for taxation of capital gains realized by Italian resident individuals not engaged in a commercial activity (*esercizio di attività commerciali)* to which the notes are connected, the *imposta sostitutiva* on capital gains will be chargeable, on a yearly cumulative basis, on all capital gains, net of any incurred capital loss, realized by the Italian resident individual. The investor holding notes not in connection with a commercial activity (*esercizio di attività commerciali*) must indicate the overall capital gains realized in any tax year, net of any relevant incurred capital loss, in the annual tax return and pay *imposta sostitutiva* on such gains together with any balance of income tax due for such year. Capital losses in excess of capital gains may be carried forward against capital gains realized in any of the four succeeding tax years.

As an alternative to the tax declaration regime, Italian resident individual investor holding the notes not in connection with a commercial activity (*esercizio di attività commerciali*) may elect to pay the *imposta sostitutiva* separately on capital gains realized on each sale or redemption of the notes (the *risparmio amministrato* regime provided for by Article 6 of the Legislative Decree 21 November 1997, No. 461 as a subsequently amended, the "Decree No. 461"). Such separate taxation of capital gains is allowed subject to (1) the notes being deposited with Italian banks, SIMs or certain authorized financial intermediaries; and (2) an express valid election for the *risparmio amministrato* regime being punctually made in writing by the relevant investor. The depositary is responsible for accounting for *imposta sostitutiva* in respect of capital gains realized on each sale or redemption of the notes (as well as in respect of capital gains realized upon the revocation of its mandate), net of any incurred capital loss, and is required to pay the relevant amount to the Italian Tax Authorities on behalf of the taxpayer, deducting a corresponding amount from the proceeds to be credited to the investor or using funds provided by the investor for this purpose. Under the *risparmio amministrato* regime, where a sale or redemption of the notes results in a capital loss, such loss may be deducted from capital gains subsequently realized, within the same notes management, in the same tax year or in the following tax years up to the fourth. Under the *risparmio amministrato* regime, the investor is not required to declare the capital gains in its annual tax return.

Subject to certain limitations and requirements (including a minimum holding period), Italian resident individuals not engaged in an entrepreneurial activity or social security entities pursuant to Legislative Decree No. 509 of 30 June 1994 and Legislative Decree No. 103 of 10 February 1996 may be exempt from Italian capital gain taxes, including the *imposta sostitutiva*, on capital gains realised upon sale or redemption of the notes, if the notes are included in a long-term savings account (*piano individuale di risparmio a lungo termine*) that meets the requirements set forth in Article 1(100-114) of Finance Act 2017, as amended and supplemented from time to time.

Any capital gains realized or accrued by Italian resident individual investors holding the notes not in connection with a commercial activity (*esercizio di attività commerciali*) who have entrusted the management of their financial assets, including the notes, to an authorized intermediary and have validly opted for the so-called *risparmio gestito* regime (the regime provided by Article 7 of Decree No. 461) will be included in the computation of the annual increase in value of the managed assets accrued, even if not realized, at year end, subject to a 26% *imposta sostitutiva*, to be paid by the managing authorized intermediary. Under the *risparmio gestito* regime, any depreciation of the managed assets accrued at year end may be carried forward against increase in value of the managed assets accrued in any of the four succeeding tax years. Under the *risparmio gestito* regime, the investor is not required to declare the capital gains realized in its annual tax return.

Any capital gains realized by an investor which is an Italian resident real estate investment fund established pursuant to Article 37 of Legislative Decree No. 58 of 24 February 1998, as amended and supplemented, and Article 14-bis of Law No. 86 of 25 January 1994 are subject neither to substitute tax nor to any other income tax in the hands of a real estate investment fund. The same tax regime applies to capital gains realised by an Italian resident SICAF mainly investing in real estate assets and governed by Legislative Decree No. 44 of 4 March 2014.

Any capital gains realized by an investor which is a Fund or a SICAV will neither be subject to *imposta sostitutiva* nor to any form of taxation in the hands of the Fund or of the SICAV, but any income paid by a Fund or by a SICAV in favour of its participants will be subject to taxation in accordance with the specific rules provided for the different kind of participants. The same tax regime applies to capital gains realized by an Italian resident SICAF not mainly investing in real estate assets and governed by Legislative Decree No. 44 of 4 March 2014.

Any capital gains realized by an investor which is an Italian pension fund (subject to the regime provided for by Article 17 of the Legislative Decree No. 252 of 5 December 2005, as subsequently amended) will be included in the result of the relevant portfolio accrued at the end of the tax period, to be subject to the 20% special substitute tax applicable to Italian pension funds. Subject to certain conditions (including minimum holding period requirement) and limitations, capital gains on the notes may be excluded from the taxable base of the 20% substitute tax if the notes are included in a long-term savings account (*piano individuale di risparmio a lungo termine*) that meets the requirements set forth in Article 1 (100-114) of Finance Act 2017, as amended and supplemented from time to time.

Non-Italian Resident Investors

Capital gains realized by non-Italian resident investors from the sale or redemption of the notes are not subject to Italian taxation, provided that the notes (1) are transferred on regulated markets, or (2) if not transferred on regulated markets, are held outside Italy. Moreover, even if the notes are held in Italy, no *imposta sostitutiva* applies if the non-Italian resident investor is resident for tax purposes in a Country which recognizes the Italian tax authorities' right to an adequate exchange of information. The provisions of applicable tax treaties against double taxation entered into by Italy apply if more favourable and provided that all relevant conditions are met.

Inheritance and Gift Taxes

Pursuant to Law Decree No. 262 of 3 October 2006, converted into Law No. 286 of 24 November 2006, as subsequently amended, the transfers of any valuable assets (including the notes) as a result of death or donation are taxed as follows:

- 4% if the transfer is made to spouses and direct descendants or ancestors; in this case, the transfer is subject to tax on that part of value that exceeds Euro 1,000,000 (per beneficiary);
- 6% if the transfer is made to brothers and sisters; in this case, the transfer is subject to the tax on that part of value that exceeds Euro 100,000 (per beneficiary);

- 6% if the transfer is made to relatives up to the fourth degree (*parenti fino al quarto grado*), to persons related by direct affinity as well as to persons related by collateral affinity up to the third degree (*affini in linea retta nonché affini in linea collaterale fino al terzo grado*); and

- 8% in all other cases.

If the transfer is made in favour of persons with severe disabilities, the tax is levied to the rate mentioned above on the value exceeding Euro 1,500,000.

Transfer Tax and Registration Tax

Contracts relating to the transfer of notes are subject to the registration tax as follows: (i) public deeds and notarized deeds (*atti pubblici e scritture private autenticate*) executed in Italy are subject to fixed registration tax at rate of Euro 200; (ii) private deeds (*scritture private autenticate*) are subject to registration tax at rate of Euro 200 only in case of voluntary registration or if the so-called "*caso d'uso*" or "*enunciazione*" occurs.

Stamp Duty

Pursuant to Article 19(1) of Law Decree No. 201 of 6 December 2011, a proportional stamp duty applies on an annual basis to the periodic reporting communications which may be sent by financial intermediaries, carrying out its business activity within the Italian territory, to an investor in respect of any notes which may be deposited with such financial intermediary. The stamp duty applies at a rate of 0.20%; this stamp duty is determined on the basis of the market value or – if no market value is available – the nominal value or redemption amount of the notes held. The stamp duty cannot exceed the amount of Euro 14,000 if the recipient of the periodic reporting communications is not an individual.

Wealth Tax

Pursuant to Article 19(18) of Law Decree No. 201 of 6 December 2011, Italian resident individuals holding the notes abroad are required to pay a wealth tax (IVAFE) at a rate of 0.20% for each year. Pursuant to Article 1(710) of Law No. 160 of 27 December 2019, as of fiscal year 2020 the mentioned tax is also due by resident non-commercial entities and Italian partnerships (*i.e.*, *società semplici* and assimilated companies) holding the notes outside the Italian territory.

This tax is calculated on an annual basis on the market value of the notes at the end of the relevant year or – if no market value is available – the nominal value or the redemption value of such financial assets held abroad. Taxpayers are entitled to an Italian tax credit equivalent to the amount of any wealth tax paid in the State where the financial assets are held (up to an amount equal to the IVAFE due).

Financial Transaction Tax (FTT) depending on the features of the Notes

Pursuant to Law No. 228 of 24 December 2012, a FTT applies to (a) transfer of ownership of shares and other participating securities issued by Italian resident companies or of financial instruments representing the just mentioned shares and/or participating securities (irrespective of whether issued by Italian resident issuers or not) (the "Relevant Notes"), (b) transactions on financial derivatives (i) the main underlying assets of which are the Relevant Notes, or (ii) whose value depends mainly on one or more Relevant Notes, as well as to (c) any transaction on certain notes (i) which allow to mainly purchase or sell one or more Relevant Notes or (ii) implying a cash payment determined with main reference to one or more Relevant Notes.

Notes could be included in the scope of application of the FTT if they meet the requirements set out above. On the other hand, notes falling within the category of bonds (*obbligazioni*) or debentures similar to bonds (*titoli similari alle obbligazioni*) are not included in the scope of the FTT.

The FTT on derivative instruments is levied at a fixed amount that varies depending on the nature of the relevant instrument and the notional value of the transaction, and ranges between Euro 0.01875 and Euro 200 per transaction. The amount of FTT payable is reduced to 1/5 of the standard rate in case the transaction is performed on regulated markets or multilateral trading facilities of certain EU and EEA

member States. The FTT on derivatives is due by each of the parties to the transactions. FTT exemptions and exclusions are provided for certain transactions and entities.

The FTT is levied and paid by the subject (generally a financial intermediary) that is involved, in any way, in the execution of the transaction. Intermediaries which are not resident in Italy but are liable to apply the FTT can appoint an Italian tax representative for the purposes of the FTT. If no intermediary is involved in the execution of the transaction, the FTT must be paid by the taxpayers. Investors are advised to consult their own tax advisers on the possible impact of the FTT.

Tax Monitoring Obligations

Pursuant to Law Decree No. 167 of 28 June 1990, converted into law by Law No. 227 of 4 August 1990, Italian resident individuals (and certain other entities) are required to report in their yearly income tax return, for tax monitoring purposes, the amount of notes directly or indirectly held abroad during each tax year. This also applies in the case that at the end of the tax year, notes are no longer held by the above Italian resident individuals and entities.

However, the above reporting obligation is not required in case the financial assets are deposited for management with Italian banks, SIMs, fiduciary companies or other professional intermediaries, indicated in Article 1 of Decree No. 167 of 28 June 1990, or if one of such intermediaries intervenes, also as a counterpart, in their transfer, provided that income deriving from such financial assets is collected thorough the intervention of such an intermediary.

Luxembourg

The following is a general description of certain Luxembourg withholding tax considerations relating to the notes. It specifically contains information on taxes on the income from the notes withheld at source and provides an indication as to whether the issuer assumes responsibility for the withholding of taxes at the source. It does not purport to be a complete analysis of all tax considerations relating to the notes, whether in Luxembourg or elsewhere. Prospective purchasers of the notes should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of the notes payments of interest, principal and/or other amounts under the notes and the consequences of such actions under the tax laws of Luxembourg. This overview is based upon the law as in effect on the date of this Base Prospectus. The information contained within this section is limited to withholding taxation issues, and prospective investors should not apply any information set out below to other areas, including (but not limited to) the legality of transactions involving the notes.

Withholding Tax

Under the Luxembourg general tax laws currently in force and subject to the exceptions below, there is no withholding tax to be withheld by the debtor of notes on payments of principal, premium or arm's length interest (including accrued but unpaid interest). Nor is any Luxembourg withholding tax payable upon redemption or repurchase of notes to the extent said notes do not (i) give entitlement to a share of the profits generated by the issuing company and (ii) the issuing company is not thinly capitalised.

Under the Luxembourg law of 23 December 2005, as amended, payments of interest or similar income made or ascribed by a paying agent established in Luxembourg to or for the immediate benefit of an individual beneficial owner who is tax resident of Luxembourg will be subject to a withholding tax of 20%. In case the individual beneficial owner is an individual acting in the course of the management of his/her private wealth, such withholding tax will be in full discharge of income tax. Responsibility for the withholding tax will be assumed by the Luxembourg paying agent.

Registration tax

A fixed or ad valorem registration duty is due (i) upon the voluntary registration of the notes or (ii) in case the notes are appended to a document that requires obligatory registration in Luxembourg. However, neither the issuance nor the transfer of notes will give rise to any Luxembourg stamp duty,

issuance tax, registration tax, transfer tax or similar taxes or duties, and no registration will be required or registration duties due when documents relating to the notes are (i) mentioned in a notarial deed without being appended thereto or (ii) presented to a court in the course of litigation.

THE NETHERLANDS

The following summary outlines certain principal Dutch tax consequences of the acquisition, holding, redemption and disposal of the notes, but does not purport to be a comprehensive description of all Dutch tax considerations that may be relevant. For purposes of Dutch tax law, a holder of the notes may include an individual or entity who does not have the legal title of these notes, but to whom nevertheless the notes or the income thereof is attributed based on specific statutory provisions or on the basis of such individual or entity having an interest in the notes or the income thereof. This overview is intended as general information only and each prospective investor should consult a professional tax adviser with respect to the tax consequences of the acquisition, holding, redemption and disposal of the notes.

This summary is based on tax legislation, published case law, treaties, regulations and published policy, in each case as in force as of the date of this Prospectus, and it does not take into account any developments or amendments thereof after that date whether or not such developments or amendments have retroactive effect.

This overview does not address the Dutch tax consequences for:

(i) investment institutions (fiscale beleggingsinstellingen);

(ii) pension funds, exempt investment institutions (vrijgestelde beleggingsinstellingen) or other entities that are not subject to or exempt from Dutch corporate income tax;

(iii) holders of notes holding a substantial interest (aanmerkelijk belang) or deemed substantial interest (fictief aanmerkelijk belang) in the Issuer and holders of notes of whom a certain related person holds a substantial interest in the Issuer. Generally speaking, a substantial interest in the Issuer arises if a person, alone or, where such person is an individual, together with his or her partner (statutorily defined term), directly or indirectly, holds or is deemed to hold (i) an interest of 5% or more of the total issued capital of the Issuer or of 5% or more of the issued capital of a certain class of shares of the Issuer, (ii) rights to acquire, directly or indirectly, such interest or (iii) certain profit sharing rights in the Issuer;

(iv) persons to whom the notes and the income therefrom are attributed based on the separated private assets (afgezonderd particulier vermogen) provisions of the Dutch Income Tax Act 2001 (Wet inkomstenbelasting 2001);

(v) entities which are a resident of Aruba, Curacao or Sint Maarten and that have an enterprise which is carried on through a permanent establishment or a permanent representative on Bonaire, Sint Eustatius or Saba, and the notes are attributable to such permanent establishment or permanent representative the notes are attributable; and

(vi) individuals to whom notes or the income therefrom are attributable to employment activities which are taxed as employment income in the Netherlands.

For the purpose of the Dutch tax consequences described herein, it is assumed that the Issuer is neither a resident of the Netherlands nor deemed to be a resident of the Netherlands for Netherlands tax purposes nor has a permanent establishment in the Netherlands to which the notes are attributed.

Where this summary refers to 'the Netherlands' or 'Dutch', such reference is restricted to the part of the Kingdom of the Netherlands that is situated in Europe and the legislation applicable in that part of the Kingdom.

Dutch Withholding Tax

All payments made by the Issuer under the notes may be made free of withholding or deduction for any taxes of whatsoever nature imposed, levied, withheld or assessed by the Netherlands or any political subdivision or taxing authority thereof or therein.

Corporate and Individual Income Tax

(a) Residents of the Netherlands

If a holder of the notes is a resident of the Netherlands or deemed to be a resident of the Netherlands for Dutch corporate income tax purposes and is fully subject to Dutch corporate income tax or is only subject to Dutch corporate income tax in respect of an enterprise to which the notes are attributable, income derived from the notes and gains realized upon the redemption or disposal of the notes are generally taxable in the Netherlands (at up to a maximum rate of 25.8%).

If an individual is a resident of the Netherlands or deemed to be a resident of the Netherlands for Dutch individual income tax purposes, income derived from the notes and gains realized upon the redemption or disposal of the notes are taxable at the progressive rates (at up to a maximum rate of 49.5%) under the Dutch Income Tax Act 2001, if:

(i) the individual is an entrepreneur (*ondernemer*) and has an enterprise to which the notes are attributable or the individual has, other than as a shareholder, a co-entitlement to the net worth of an enterprise (*medegerechtigde*), to which enterprise the notes are attributable; or

(ii) such income or gains qualify as income from miscellaneous activities (*resultaat uit overige werkzaamheden*), which includes activities with respect to the notes that exceed regular, active portfolio management (*normaal, actief vermogensbeheer*).

If neither condition (i) nor condition (ii) above applies to the holder of the notes, taxable income with regard to the notes must be determined on the basis of a deemed return on savings and investments (*sparen en beleggen*), rather than on the basis of income actually received or gains actually realized. This deemed return on savings and investments is determined based on the individual's yield basis (*rendementsgrondslag*) at the beginning of the calendar year (1 January), insofar as the individual's yield basis exceeds a statutory threshold (*heffingvrij vermogen*) (EUR 57,000 in 2023). The individual's yield basis is determined as the fair market value of certain qualifying assets held by the individual less the fair market value of certain qualifying liabilities on 1 January. The individual's deemed return is calculated by multiplying the individual's yield basis with a 'deemed return percentage' (*effectief rendementspercentage*), which percentage depends on the actual composition of the yield basis, with separate deemed return percentages for savings (*banktegoeden*), other investments (*overige bezittingen*) and debts (*schulden*). As of 1 January 2023, the percentage for other investments, which includes the notes, is set at 6.17%. The deemed return on savings and investments is taxed at a rate of 32%.

(b) Non-residents of the Netherlands

If a person is neither a resident of the Netherlands nor is deemed to be a resident of the Netherlands for Dutch corporate or income tax purposes, such person is not liable to Dutch income tax in respect of income derived from the notes and gains realized upon the redemption or disposal of the notes, unless:

(i) the person is not an individual and such person (1) has an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or permanent representative the notes are attributable, or (2) is (other than by way of securities) entitled to a share in the profits of an enterprise or a co-entitlement to the net worth of an enterprise, which is effectively managed in the Netherlands and to which enterprise the notes are attributable.

This income is subject to Dutch corporate income tax at up to a maximum rate of 25.8%.

(ii) the person is an individual and such person (1) has an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or permanent representative the notes are attributable, or (2) realizes income or gains with respect to the notes that qualify as income from miscellaneous activities in the Netherlands, which includes activities with respect to the notes that exceed regular, active portfolio management , or (3) is, other than by way of securities, entitled to a share in the profits of an enterprise that is effectively managed in the Netherlands and to which enterprise the notes are attributable.

Income derived from the notes as specified under (1) and (2) by an individual is subject to individual income tax at progressive rates up to a maximum rate of 49.5%. Income derived from a share in the profits of an enterprise as specified under (3) that is not already included under (1) or (2) will be taxed on the basis of a deemed return on savings and investments (as described above under "Residents of the Netherlands").

Gift and Inheritance Tax

Dutch gift or inheritance taxes will not be levied on the occasion of the transfer of the notes by way of gift by, or on the death of a holder of the notes, unless:

(i) the holder of the notes is, or is deemed to be, resident in the Netherlands for the purpose of the relevant provisions; or

(ii) the transfer is construed as an inheritance or gift made by, or on behalf of, a person who, at the time of the gift or death, is or is deemed to be resident in the Netherlands for the purpose of the relevant provisions.

Value Added Tax

In general, no value added tax will arise in respect of payments in consideration for the issue of the notes or in respect of a cash payment made under the notes, or in respect of a transfer of notes.

Other Taxes and Duties

No registration tax, customs duty, transfer tax, stamp duty or any other similar documentary tax or duty will be payable in the Netherlands by a holder of the notes in respect of or in connection with the subscription, issue, placement, allotment, delivery or transfer of the notes.

NORWAY

The following is a general description of the Norwegian tax considerations relating to the notes. The description is based on legislation as at the date of this document. It does not purport to be a complete analysis of all tax considerations relating to the notes, whether in Norway or elsewhere. It is recommended that prospective investors of the notes consult their own tax advisers for information with respect to the special tax consequences that may arise as a result of holding the notes, including the applicability and effect of foreign income tax rules, provisions contained in double taxation treaties and other rules which may be applicable. Any changes to applicable tax laws may have a retrospective effect.

The final terms may cause the taxation of the notes to depart from the taxation treatment described in this summary.

Taxation of Norwegian residents

Fixed Rate Notes and Floating Rate Notes

The Fixed Rate Notes and Floating Rate Notes will normally be classified as debt instruments for Norwegian tax purposes, and this is assumed in the following. It is also assumed that the notes are

debentures ("mengdegjeldsbrev"). In preparatory works, "*mengdegjeldsbrev"* has been defined as several debt instruments issued at the same time with identical text.

For Norwegian noteholders, interest on the notes is taxable as "ordinary income", subject to a flat rate of 22%. This applies irrespective of whether the Norwegian noteholders are individuals or corporations. For financial institutions, the tax rate for "ordinary income" is 25%. Interest is as a general rule taxed on an accrual basis (i.e. regardless of when the return is actually paid).

Redemption of the notes as well as prior disposal of the notes are treated as a realisation of such notes and may result in a capital gain or loss for Norwegian noteholders under Norwegian tax law. Capital gains will be taxable as "ordinary income", subject to the flat rate of 22% (25% for financial institutions). Losses will be deductible from a Norwegian noteholder's "ordinary income".

Any capital gain or loss is computed as the difference between the amount received by the Norwegian noteholder on realisation and the cost price of the notes. The cost price is equal to the price for which the Norwegian noteholder acquired the notes. Costs incurred in connection with the acquisition and realisation of the notes may be deducted from a Norwegian noteholder's taxable income in the year of the realisation.

The value of the notes held by an individual Norwegian noteholder at the end of each income year will be included in the computation of his/her taxable net wealth for municipal and state net wealth tax purposes. Under Norwegian tax law, listed notes are valued at their quoted value on 1 January in the relevant assessment year. The marginal rate of net wealth tax is currently 1.0% for net worth above a minimum threshold of NOK 1,700,000, and 1.1% for net worth above a minimum threshold of NOK 20,000,000.

Indexed Notes

The indexed notes should as a starting point be taxed as debentures, see above regarding Fixed Rate Notes and Floating Rate Notes. However, index-determined interest is taxable when and to the extent it is unconditional for the noteholder, i.e. when it cannot be lost irrespective of the further development of the index.

In case the repayment of the principal amount on indexed notes is fully or partially conditional on the development of the underlyer (the index), it cannot be totally excluded that such notes may be classified as financial derivatives (not debentures/debt instruments). In that case, the Norwegian exemption method is normally applicable for corporate noteholders if the derivative is deemed to derive its value from an index covering mainly (90% or more) shares/equities being qualifying investment objects under the exemption method. Shares in companies resident within the EU/EEA are as a main rule qualifying investment objects. If the exemption method does not apply, gain or loss on the financial derivative will be included in the noteholder's ordinary income (taxable at a rate of 22% or, in case of a financial institution, 25%).

Withholding tax

As the Issuer is not resident in Norway for tax purposes and has no permanent establishment, fixed place of business or presence in Norway, no Norwegian withholding tax is expected to be applicable to the payments made by the Issuer in respect of the notes.

POLAND

The following information about certain Polish taxation matters is based on the laws and practice in force as of the date of this Base Prospectus and is subject to any changes in law and the interpretation and application thereof, which changes could be made with retroactive effect. The following information does not purport to be a comprehensive description of all the tax consequences and considerations that may be relevant to acquisition, holding, disposing and redeeming of or cancelling (as applicable) the notes, and does not purport to deal with the tax consequences applicable to all categories of investors. The following information is based on the assumption that no Agent is located in Poland. The following information is not intended to be, nor should it be construed to be, legal or tax advice. It is recommended that potential purchasers of the notes consult with their legal and tax advisors as to the tax consequences of the purchase, holding, sale or redemption of notes.

Withholding tax

There is no withholding tax in Poland in relation to the notes, subject to comments below.

Taxation of income

Polish resident individuals

Individuals having their place of residence in Poland ("Polish Resident Individuals") are subject to Polish Personal Income Tax ("PIT") on their worldwide incomes irrespective of the country from which the incomes were derived. Income earned by Polish Resident Individuals on the disposal or redemption of notes should not be combined with income from other sources but will be subject to the 19% flat PIT rate. Additionally, income on disposal of notes is subject to 4% solidarity tax on the surplus over PLN 1 million (the tax base of solidarity tax comprises of various incomes including capital gains on the disposal of notes). The income is calculated as the difference between the revenue earned on the disposal or redemption of notes (in principle, the selling price or redemption amount) and the related costs (in principle, the issue price). The tax is settled by Polish Resident Individuals on an annual basis. Interest under notes earned by a Polish Resident Individuals should not be combined with income from other sources and will be subject to the 19% flat PIT rate. The tax is settled by Polish Resident Individuals on an annual basis. Generally, tax withheld in other countries on interest income can be deducted against tax payable on this income in Poland unless otherwise provided by the provisions of the Double Tax Treaty concluded between Poland and country where the tax was withheld.

Specific tax rules apply to incomes derived from notes and disposal of notes held as business assets. In this case, tax at the 19% flat rate or the progressive rate of 12% to 32%, depending on the choice of and certain conditions being met by the individual, should be settled by the individuals themselves. Furthermore, business incomes are subject to 4% solidarity tax on the surplus of various incomes above PLN 1 million.

Polish resident entities

Entities having their seat or place of management in Poland ("Polish Resident Entities") are subject to Polish Corporate Income Tax ("CIT") on their worldwide incomes irrespective of the country from which the incomes were derived. CIT is imposed on income which is a sum of income generated from capital gains and income generated from other sources of revenue. Income is determined separately for each relevant basket, i.e. revenues from capital gains are separated from revenues from other sources. Correspondingly, the tax losses are determined separately for each of these baskets, whereby a tax loss from one basket may not be deducted against the income from the other basket. Income earned by Polish Resident Entities on the disposal or redemption of notes is attributed to capital gains basket and is in principle subject to the 19% CIT rate. The income is calculated as the difference between the revenue earned on the disposal or redemption of notes (in principle, the selling price or redemption amount) and the related costs (in principle, the issue price).

The amount of interest earned by a Polish Resident Entity under notes is also attributed to capital gains basket and is in principle subject to the 19% CIT rate or 9% for small taxpayers. Generally, tax withheld in other countries on interest income can be deducted against tax payable on this income in Poland unless otherwise provided by the provisions of the Double Tax Treaty concluded between Poland and country where the tax was withheld.

Non-resident individuals and entities

Non-Polish residents are subject to tax only on income (revenue) earned in Poland (limited tax obligation). Income (revenue) earned in the territory of the Republic of Poland in particular means income (revenue) from: (i) all types of activity pursued in the Republic of Poland, including through a foreign establishment located in the Republic of Poland; (ii) immovable property located in the Republic of Poland or rights to such property, including from its disposal in whole or in part, or from the disposal of any rights to such property; (iii) securities and financial derivatives which are admitted to public trading on the territory of the Republic of Poland on the regulated exchange market, including income (revenue) generated from the disposal of such securities, and the exercise of the rights arising from any of the above; (iv) the transfer of the ownership of shares in a company, all rights and obligations in a company that is not a legal person, shares in investment funds, or mutual fund institutions where real estate property located in the territory of the Republic of Poland or rights to such real estate property, directly or indirectly, constitute at least 50% of their assets; (v) the transfer of ownership of shares, all rights and obligations, units or similar rights in the real property company as defined in the Polish CIT Act; (vi) the receivables settled, including receivables placed at disposal, paid out or deducted, by natural persons, legal persons, or organisational units without legal personality, having their place of residence, seat, or management board in the Republic of Poland, irrespective of the place of conclusion of the agreement and place of performance; and (vii) unrealized gains.

Individuals and entities that are non-Polish residents will not generally be subject to Polish taxes on interest and income resulting from the disposal or redemption of notes as long as income is not attributable to an enterprise (a business activity) which is either managed in Poland or carried through a permanent establishment in Poland and notes are not quoted on the Warsaw Stock Exchange.

If interest income or income from the disposal/redemption of notes are attributable to an enterprise, it is taxable the same way as income of Polish resident individuals (holding notes as business assets) or entities.

As regards notes quoted on the Warsaw Stock Exchange held by treaty protected non-Polish residents, income on the disposal or redemption of notes quoted on the Warsaw Stock Exchange will not be subject to tax in Poland. However, interest paid to treaty protected non-Polish residents on notes quoted on the Warsaw Stock Exchange may be considered a Polish source income and taxed in Poland in accordance with the relevant Double Tax Treaty. In case of such noteholders, if notes quoted on the Warsaw Stock Exchange are registered in securities accounts or omnibus accounts kept in Poland and operated by Polish resident entities, withholding tax should be collected and paid to the tax authorities by such entities acting as tax remitters. Otherwise, tax should be settled by noteholders on their own. If tax on interest is withheld by a tax remitter, the withholding tax pay&refund regime may apply to such interest payments between affiliated parties within the meaning of the PIT and CIT laws (please see below).

In the case of individuals and entities resident in a country which does not have a double tax treaty with Poland, interest on notes quoted on the Warsaw Stock Exchange as well as income on the disposal/redemption of notes quoted on the Warsaw Stock Exchange will be taxed in Poland at 19%. PIT rate in case of interest income and income from disposal/redemption of notes generated by individuals (plus 4% solidarity tax on income from disposal of notes on the tax base, which may include also some other incomes and exceeds PLN 1 million) and 20% CIT rate in case of interest income and 19% CIT rate in case of income from disposal/redemption of notes generated by corporate income taxpayers. In case of such non-treaty protected noteholders if notes quoted on the Warsaw Stock Exchange are registered in securities accounts or omnibus accounts kept in Poland and operated by Polish resident entities, withholding tax should be collected and paid to the tax authorities by such entities acting as tax remitters. Otherwise, tax should be settled by noteholders on their own.

Withholding tax pay and refund regime

Under the withholding tax pay and refund regime, which applies from January 1, 2022, generally, if the total amount of passive payments (including interest) between affiliated entities made to a single taxpayer in the relevant tax year (subject to any withholding tax provided for in Polish tax regulations) exceeds PLN 2 million, tax remitters will be obliged to collect withholding tax on the said disbursements on the day they are made, at the standard Polish rates (i.e. 19% in the case of individuals or 20% in the case of corporate income taxpayers) applicable to interest on the surplus over PLN 2 million without the possibility of non-collection of the tax under the relevant double tax treaty, and without taking into account the exemptions or reduced rates as determined under special provisions or double tax treaties. In such a case, the taxpayer or the tax remitter (if it paid the withholding tax from its own funds and it bore the economic burden of withholding tax) may claim a withholding tax refund. Under special provisions, withholding tax may not be collected by the tax remitter if it specifically states that: (i) it holds all the documents necessary for the application of a withholding tax exemption or reduced treaty rates (basically, a certificate of tax residence) and (ii) after verification it is not aware of any obstacles to the application of a withholding tax exemption or reduced treaty rates (which in practice means that the recipient passes the beneficial ownership test).

Taxation of inheritances and donations

The Polish tax on inheritance and donations is paid by individuals who received title to notes by right of succession, as legacy, further legacy, testamentary instruction or gift only if at the moment of the acquisition of the notes the acquirers were the Polish citizens or had residence within the territory of Poland. The rates of tax on inheritances and donations vary depending on the degree of kinship by blood, kinship through marriage or other types of personal relationships existing between the testator and the heir, or between the donor and the donee (the degree of the kinship is decisive for the assignment to a given tax group). The tax rate varies from 3% to 20% of the taxable base depending on the tax group to which the recipient was assigned. Acquisition of ownership of notes by a spouse, descendants, ascendants, stepchildren, siblings, stepfather or stepmother is tax exempt if the beneficiary notifies the head of the competent tax office of the acquisition within six months of the day when the tax liability arose or, in the case of an inheritance, within six months of the day when the court decision confirming the acquisition of the inheritance becomes final.

Tax on civil law transactions

Generally, tax on civil law transactions at a rate of 1% is levied on the sale or exchange of the rights exercised in Poland. The taxpayer of this tax is only the purchaser of the rights. The tax is also imposed on agreements for the sale or exchange of the rights exercised outside Poland (including notes) only if the sale or exchange agreement is concluded in Poland and the purchaser has a place of residence or seat in the territory of Poland. However, the sale of notes (i) to investment firms (including foreign investment firms within the meaning of the Polish Act on Trading on Financial Instrument), or (ii) via investment firms (including foreign investment firms) acting as intermediaries, or (iii) the sale of the notes either on the Warsaw Stocks Exchange or on any multilateral trading facility operating in Poland in accordance with relevant regulations (i.e. in the "Organized trading"), or (iv) outside the Organized trading by investment firms (including foreign investment firms) if the notes had been acquired by such firms as a part of Organized trading - is exempt from tax on civil law transactions.

Other Taxes

No other Polish taxes should be applicable to the notes.

Polish implementation of the EU Savings Tax Directive

The European Union adopted Council Directive 2011/16/EU, as amended by Council Directive 2014/107/EU, on administrative cooperation in the field of taxation and repealing Council Directive 2003/48/EC, regarding the taxation of savings income. From 1 July 2005, Member States have been required to provide to the tax authorities of other Member States details of payments of interest or other

similar income paid by a person to an individual resident in another Member State. A number of non-EU countries and territories (referred to in that Directive) adopted equivalent measures from the same date.

Notwithstanding the repeal of Council Directive 2003/48/EC (as amended by Directive 204/48/EU), equivalent measures continue to apply in Poland pursuant to the Act on the Exchange of Tax Information with other countries of 9 March 2017.

PORTUGAL

The following is a general description of certain Portuguese withholding tax considerations relating to the Notes. It does not purport to be a complete analysis of all tax considerations relating to the Notes, whether in Portugal or elsewhere, neither does it purport to address the tax consequences applicable to all categories of investors, some of which may be subject to special rules. This overview is based upon the law as in effect on the date of this Private Placement Memorandum. It is subject to any change of the law that may apply after such date. The information contained within this section is limited to withholding taxation on income paid by Portuguese resident entities to Portuguese resident individuals, and prospective investors should not apply any information set out below to other areas. Prospective purchasers of the Notes should consult their own tax advisers as to the consequences of making an investment in, holding or disposing of the Notes and the receipt of any amount under the Notes.

Payments of interest (and principal) and other income by the relevant Issuers under the Notes may in principle be made without any withholding for or on account of Portuguese taxes to the extent that the relevant Issuers are not residents for tax purposes in Portugal or are not otherwise acting through a Portuguese permanent establishment.

However, interest and other income (excluding capital gains) arising from the Notes is subject to withholding tax at a 28% rate when paid or made available by Portuguese resident entities (acting on behalf of the Issuer or of the holders of the Notes) to Portuguese resident individuals, in which case tax should be withheld by the former.

In this case, the holder of the Notes may choose to treat the withholding tax as a final tax or to tax the income at the general progressive income tax rates of up to 48% (plus an additional surcharge of 2.5% applicable on income exceeding EUR 80,000 and up to EUR 250,000 and of 5% applicable on income exceeding EUR 250,000), in which case the withholding will be considered as a payment on account of the final tax liability.

Such income when paid or made available by Portuguese resident entities (acting on behalf of the Issuer or of the holders of the Notes) to accounts in the name of one or more resident accountholders acting on behalf of unidentified third parties is subject to a final withholding tax rate of 35% unless the relevant beneficial owners of the income are identified, in which case the general tax rules applicable to said beneficiaries should apply.

A withholding tax rate of 35% also applies to income due by non-resident entities without permanent establishment in Portugal, domiciled in a country, territory or region subject to a clearly more favourable tax regime included in the "low tax jurisdictions" list (approved by Ministerial order no. 150/2004, of 13 February 2004, as amended) and paid or made available through Portuguese resident entities to individuals resident in Portugal.

Mandatory Automatic Exchange of Information

Under EC Council Directive no. 2003/48/EC, of 3 June 2003 (the "EU Savings Directive"), on taxation of savings income in the form of interest payments, Member States are required to provide to the tax authorities of another Member State, details of payments of interest (or similar income) paid by a person within its jurisdiction to an individual resident in that other Member State.

A number of non-EU countries and certain dependent or associated territories of certain Member States have agreed to adopt similar measures (either provision of information or transitional withholding) in

relation to payments made by a person within its jurisdiction to, or collected by such a person for, an individual resident in a Member State. In addition, the Member States have entered into reciprocal provision of information or transitional withholding arrangements with certain of those dependent or associated territories in relation to payments made by a person in a Member State to, or collected by such a person for, an individual resident in one of those territories.

Portugal has implemented the above EU Savings Directive on taxation of savings income in the form of interest payments into the Portuguese law through Decree-Law no. 62/2005, of 11 March 2005, as amended.

Meanwhile, further measures in the field of information exchange were adopted at the EU-level, namely with the approval by the European Council of the Directive no. 2014/107/EU of 9 December 2014) which amended EU Council Directive no. 2011/16/EU ("Administrative Cooperation Directive") to extend the mandatory automatic exchange information to a wider range of income, including financial income, in line with the Standard for Automatic Exchange of Financial Account Information in Tax Matters issued by OECD in July 2014 and with the bilateral exchange agreements between the United States of America and several other countries to implement the United States' Foreign Account Tax Compliance Act ("FATCA").

Given the broader scope of Council Directive no. 2014/107/EU and in order to prevent overlap between the EU Savings Directive and Administrative Cooperation Directive (as amended by Council Directive no. 2014/107/EU), the EU Savings Directive has been repealed with effect from 1 January 2016 (and from 1 January 2017 in case of Austria) by the Council Directive 2015/2060 of 10 November 2015.

Portugal has implemented the Administrative Cooperation Directive (as amended by the EU Council Directive no. 2014/107/EU) into the Portuguese law through Decree-Law no. 64/2016, of 11 October 2016. Portugal has also implemented the FATCA regulations through Decree-Law no. 64/2016, of 11 October 2016.

Prospective investors resident in Portugal should consult their own legal or tax advisers regarding the consequences of the Administrative Cooperation Directive and the FATCA regulations in their particular circumstances.

ROMANIA

The following text is a high-level summary of certain Romanian tax aspects and considerations relating to the notes. This information is of a general nature and it does not purport to be a comprehensive analysis of all relevant tax aspects that has to be considered when deciding to invest in notes.

This summary is based on the provisions of the Romanian fiscal legislation in force as of March 15, 2023 It should be noted that the Romanian tax law and procedures are sometimes unclear and not well developed, being subject to frequent changes and interpretation including as regards tax matters of income form notes

This summary does not describe any tax aspects resulting from the tax laws of any other state than Romania.

Investors are, under all circumstances, strongly advised to contact their own tax advisor to clarify the individual consequences of their investment, holding and disposal of the notes.

The summary below assumes that the Issuer of the notes is not tax resident in Romania and the notes are not issued via a Romanian branch/permanent establishment of the Issuer.

Romanian withholding tax on interest payments

Interest income received by a non-resident person from a Romanian resident is subject to withholding tax. Starting from the premise that the Issuer is not resident for tax purposes in Romania and it has no permanent establishment in Romania, the payments made by the Issuer in respect of interest, premiums, principal and capital gains in connection with notes will not be deemed made from Romania.

Taxation of resident individual holders

Romanian citizens with fiscal domicile in Romania or non-resident citizens who meet the conditions of fiscal residence according to Romanian legislation, respectively the residency criteria provided in the Fiscal Code, individuals, have the obligation to pay tax on all income obtained, regardless of whether they are obtained from Romania or from another country.

Holding resident individuals are subject to taxation in Romania for income from investments resulting from holding, redemption, sale or any other transaction with notes, regardless of the nature of income. They are taxed on interest income, premiums or earnings that they can obtain from the transfer of notes. The tax will be calculated on these incomes in the quota of 10% for all the incomes from investments, less the incomes from dividends, for which the tax quota is of 8%.

The income tax of resident or non-resident individuals, but who meet the conditions of fiscal residence in Romania, will be calculated according to the gain or loss from transfer of notes and will be determined as a positive or negative difference between the sale or redemption of the notes and their purchase price. Depending on the documents held, the cost of the transactions will be determined.

According to the provisions of the Fiscal Code, in Romania, the annual taxable net gain from the transfer of notes, from any other operations with financial instruments, including derivative financial instruments, is determined by the taxpayer as the difference between the annual net gain and the reported losses from previous fiscal years. from these operations.

Income in the form of earnings from the transfer of securities and from operations with derivative financial instruments, determined according to art. 94 and 95, and for transfers/operations carried out through the entities provided for in art. 96^1 para. (1), is imposed through withholding tax as follows:

a) in the case of securities:

(i) by applying a 1% rate to each gain from the transfer of securities that were acquired and disposed of in a period greater than 365 days, inclusive, from the date of acquisition.

(ii) by applying a 3% rate to each gain from the transfer of securities that were acquired and disposed of in a period less than 365 days from the date of acquisition.

b) in the case of operations with derivative financial instruments:

(i) by applying a 1% rate to each gain from carrying out operations with derivative financial instruments held for a period greater than 365 days, inclusive, from the date of acquisition.

(ii) by applying a 3% rate to each gain from carrying out operations with derivative financial instruments held for a period less than 365 days from the date of acquisition. To determine the period in which they were held, the securities and financial instruments are deemed to have been sold/redeemed in the same order in which they were acquired, respectively first in - first out, for each symbol.

The annual net loss from these operations will be established by the single declaration regarding the income tax and the social contributions due by the natural persons, it is recovered from the annual net gains obtained in the next 7 consecutive fiscal years. The loss carryover rule is: the carryover is made chronologically, depending on the age of the loss, in the next 7 consecutive years; the right to carry forward is personal and non-transferable; the carried forward loss, not compensated after the expiration of the 7 years, represents the final loss of the taxpayer.

The annual net losses coming from abroad are carried forward and compensated by the taxpayer with the incomes of the same nature and source, realized on each country and registered in the next 7 fiscal years.

The fiscal residents of the states with which Romania has concluded a Double Taxation Avoidance Convention are generally taxable for the interests obtained from Romania in the state of fiscal residence, but for each situation, the provisions of the conventions between states must be considered. Thus, according to these double taxation conventions, exemptions can be considered in the situation where the natural person has paid tax by withholding tax in a foreign country for the incomes obtained from notes.

The resident natural person has the obligation to declare through the Single Declaration and to pay taxes for any income or gain obtained from abroad. If the payments of income or gains from notes are made through Romanian paying agents, it is possible that the tax authorities require the paying agents to withhold the tax due by the natural person resident in Romania, for example for interest income yes dividends.

For the incomes obtained from notes, the natural person resident in Romania has the obligation to pay the social health insurance contribution, if the incomes and earnings obtained by it fall within the limit of 6 minimum gross monthly salaries (RON 18,000), in force at the date of submitting the single declaration.

For 2023, the minimum income threshold triggering the obligation to pay the social health insurance contribution is as follows: (i) RON 18,000, for people having an income between 6 and 12 times the Minimum Gross Wage per Country (as defined below). In this case, the minimum contribution is RON 1,800; (ii) RON 36,000, for people having an income between 12 and 24 times the Minimum Gross Wage per Country. In this case, the minimum contribution for social health insurance is RON 3,600; (iii) RON 72,000, for people having an income higher than 24 times the Minimum Gross Wage per Country. In this case, the minimum contribution for social health insurance is RON 7,200.

For 2022 the triggering threshold was RON 30,600 (and the Minimum Gross Wage per Country for 2022 was RON 2,550).

The contribution of social health insurance is due by the individual and in the situation where the income and earnings from notes are below the aforementioned limit, but he also obtains other income, except for income from salaries and assimilated to salaries, for example income from independent activities, income from dividends, income from other sources, income from intellectual property rights, which cumulated with the income from notes, exceed the limit established by law.

If the incomes and gains from notes cumulated with the incomes from other sources do not exceed the limit established by law, the natural person has no obligation to pay the social health insurance contribution, this being optional.

The resident natural person who does not realize income at the limit established by law, can opt for the payment of the contribution through the single declaration, due the contribution for 12 months, at a calculation base equal to 6 minimum gross salaries per country in force at the date of submission of the single declaration, regardless of the date of its submission.

Individuals who earn income from independent activities and income from intellectual property rights (with the exception of income from the exploitation of intellectual property rights by heirs, remuneration representing the resale right, and compensatory remuneration for private copying) from one or more sources and/ or categories of income can opt for the payment of the social health insurance contribution for the current year, provided that the cumulative value of their estimate for their current year net income is below the minimum ceiling of 12 times the Minimum Gross Wage per Country, in force at the time of submission of the Single Declaration on income tax and social contributions owed by natural persons - Chapter II. Data on the estimated income tax/income rate to be achieved in Romania and the social contributions due.

Inclusion in the annual ceiling of at least 6 times Minimum Gross Wage per Country, in force at the time of submission of the Single Declaration on income tax and social contributions owed by natural persons - Chapter II. Data on the estimated income tax/rate of income to be made in Romania and the social contributions due, respectively up to and including May 25 of the year for which the contribution is due, is carried out by accumulating the following incomes, as estimated for the year current:

- net income and/or annual income norms from independent activities.

- the gross income achieved on the basis of sports activity contracts.

- as well as net income from intellectual property rights.

The social insurance contribution rate is 25%.

Gross minimum basic salary per country means the minimum gross basic salary per country guaranteed approved, as approved by the government, parliament or other competent authority (the "Gross Minimum Basic Salary per Country").

In 2023, the Gross Minimum Basic Salary per Country is RON 3,000 per month.

The annual basis for calculation of the social health insurance contribution, in the case of people who opt for its payment, is the income chosen by the taxpayer, which cannot be lower 12 times the Gross Minimum Basic Salary per Country, in force at the time of submission of the Single Declaration regarding income tax and social contributions owed by natural persons - Chapter II. Data on the estimated income tax/rate of income to be achieved in Romania and the social contributions due.

Taxation of resident entities holders.

Resident entities which are tax resident in Romania (i.e. if they are incorporated in Romania or if they have their effective place of management in Romania or if they are legal entities incorporated according to European legislation with registered office in Romania) will be subject to corporate income tax on their incomes, including any incomes resulting from the holding, redemption, sale or any other transaction with the notes held by a Romanian legal entity. The applicable tax rate is 16%. The tax loss incurred by these entities can be carried forward for 7 consecutive years.

The taxable based for corporate tax purpose is computed as the difference between revenues and expenses registered by entities as per the accounting rules, adjusted with tax items. Therefore, the corporate tax consequences deriving from holding, redemption, sale or any other transaction with the notes is dependent also on the accounting treatment applied to such notes, especially as regards the recognition of the related revenues and expenses.

In certain conditions, according to the Romanian fiscal legislation, the incomes derived from dividends and from evaluation/revaluation/sale of shares is exempt from corporate income tax.

The Romanian fiscal legislation also states that the losses incurred by a company from selling receivables is deductible within the limit of 30%. In case of credit institutions, if receivables are partially covered by provisions or taken off from the balance sheet and then sold, 70% of the difference between the value of receivable and their selling price represents taxable income. The sale at a loss of bonds might fall under this deductibility threshold.

If a Romanian legal entity sells its participation titles held to company outside Romania, and if between Romania and the buyer's country of residence there is a double taxation treaty, a withholding tax exemption may be applied. The exemption is applied by applying the tax credit within the limit of the corporate income tax due in Romania**.**

Moreover, please note that under Romanian legislation, legal entities with an annual income lower than RON equivalent of EUR 500,000 as at 31 December of the previous year have the possibility to opt, only under certain conditions, to pay tax for micro-entities of 1% applied to income obtained (except certain income specifically provided) without possibility to deduct expenses.

Taxation of non-residents

Non-resident (legal entities and/or individuals carrying on independent activities) will be subject to tax in Romania in respect of income derived from the notes in case they have a permanent establishment in Romania to which the notes are attributable.

Stamp duties, transfer taxes, other taxes

There are no stamp duties, transfer taxes or other taxes due in Romania in connection with acquisitions and transactions with notes, other than those mentioned above.

SLOVAKIA

The following is a brief overview of Slovakia (income) tax aspects in connection with the notes. It does not claim to fully describe all Slovak tax consequences of the acquisition, ownership, disposition or redemption of the notes. In some cases a different tax regime may apply. As under the Program different types of notes may be issued, the tax treatment of such notes can be different due to their specific terms. Further, this overview does not take into account or discuss the tax laws of any country other than Slovakia nor does it take into account the investors' individual circumstances. Prospective investors are advised to consult their own professional advisors to obtain further information about the tax consequences of the acquisition, ownership, disposition, redemption, exercise or settlement of any of the notes. Only personal advisors are in a position to adequately take into account special tax aspects of the particular notes in question as well as the investor's personal circumstances and any special tax treatment applicable to the investor.

This overview is based exclusively on Slovak law as in force as of the date of this Base Prospectus. The laws and their interpretation by the tax authorities may change. With regard to certain innovative or structured financial notes or instruments there is currently neither case law nor comments of the financial authorities as to the tax treatment of such financial notes and instruments. Accordingly, it cannot be ruled out that the Slovak financial authorities and courts or the Slovak paying agents adopt a view different from that outlined below.

Slovak taxation in general

In the case where payments vis-á-vis Slovak investors and related to the notes (in Slovak: "*dlhopisy*") issued on the basis of the Base Prospectus will not be made either by Slovak entity nor Slovak resident transfer/payment agent will take care of the payments related to the notes, such payments related to the above notes will not be subject to the withholding or securing tax in the Slovak Republic.

If the payments related to the notes not being the state notes are paid by the paying agent resident or having a permanent establishment in the Slovak Republic, there is a high risk that the interest or any other similar income paid (i) to individuals, (ii) to a taxable party not established or founded to conduct business (e.g., associations of legal entities, chambers of professionals, civic associations, including trade union organizations, political parties and movements, churches and religious communities recognized by the State, etc.), (iii) to the National Bank of Slovakia or (iv) to a non-resident legal entity not conducting business in the territory of the Slovak Republic through a permanent establishment (i.e., a legal entity not having its registered office or its place of actual management or its permanent establishment in the territory of the Slovak Republic – non-Slovak tax resident) could be subject to the 19% withholding tax (or 35% in case of countries that are not protected by bilateral Double Taxation Treaty or Tax Administrative Treaty).

Further, any interest paid or any other similar income from notes not being the state notes paid by the paying agent resident or having a permanent establishment in the Slovak Republic to other non-Slovak tax resident not mentioned in the previous paragraph may still be subject to 19% (or 35%) securing or withholding tax, unless the non-Slovak tax resident is a tax resident of an EU Member State (in which case no tax securing is required). No tax securing is required if a non-Slovak tax resident proves that he already pays Slovak income tax prepayments; the respective tax administrator may however decide otherwise. In any case, such tax security would be subsequently credited against the final Slovak tax liability of the non-Slovak tax resident in its income tax return. The applicable Double Taxation Treaty may further provide for exemption or credit of whole amount of such tax paid in Slovakia or part thereof.

Furthermore, please note that the tax consideration of the regime of interest paid to other types of taxable parties, as mentioned above or the tax consideration of the regime of interest paid from other types of securities as notes, if applicable, would be much more complex and would require separate more detailed consideration.

Individual Investors

Individual is Slovak resident

All payments of interest and principal by the Issuer under the notes can be made free and clear of any withholding or deduction for or on account of any taxes of whatsoever nature imposed, levied, withheld, or assessed by Slovakia or taxing authority thereof or therein, in accordance with the applicable Slovak law, subject however to:

The application of 19% Slovak withholding tax (in Slovak: "*zrážková daň*"), if income derived from the notes is paid out by a custodian or a paying agent (financial institutions including Slovak branches of foreign financial institutions paying out the income to the holder of the notes) located in Slovakia. The term "income from the notes" includes (i) interest and (ii) other income derived from the notes.

In case no withholding tax is levied on income from the notes (i.e., interest income is not paid out by a custodian or paying agent in Slovakia), Slovak resident individual investors will have to declare the income derived from the notes in their income tax returns pursuant to the Slovak Income Tax Act. In this case the income from the notes is generally subject to Slovak personal income tax at the 19% rate.

Individual is not Slovak resident

In case of non-resident holders of the notes, Slovak withholding tax will generally apply on resulting interest payments, provided that such income is attributable to his/her Slovak permanent establishment and that such payments are made by a custodian or paying agent in Slovakia.

Capital Gains

Income realized by a non-Slovak tax resident, not holding the notes through a permanent establishment in the Slovak Republic, from the sale of the notes: (i) to a Slovak tax resident, or (ii) to a Slovak permanent establishment of another non-Slovak tax resident will be subject to taxation in the Slovak Republic, unless an applicable Double Taxation Treaty provides for other taxation of income or capital gains realized from the sale of the notes by such non-Slovak tax resident. Most of the applicable Double Taxation Treaties do not permit taxation of such income in the Slovak Republic at all.

If such income realized by a non-Slovak tax resident still remains taxable in the Slovak Republic under the previous paragraph and the applicable Double Taxation Treaty does not state otherwise, a 19% securing tax (or 35% in case of countries that are not protected by bilateral Double Taxation Treaty or Tax Administrative Treaty) is deducted by the purchaser, unless the non-Slovak tax resident is a tax resident of an EU Member State (in which case no tax securing is required). Further, no tax securing should be required if a non-Slovak tax resident proves that he already pays Slovak income tax prepayments; the respective tax administrator may however decide otherwise. In any case, such tax security would be subsequently credited against the final Slovak tax liability of the non-Slovak tax resident. The applicable Double Taxation Treaty may further provide for exemption or credit of whole amount of such tax paid in Slovakia or part thereof.

Income realized by Slovak tax residents from the sale of the notes is generally subject to Slovak corporate income tax at 15% or 21% flat rate or personal income tax at the 19% or 25% progressive rate (income of individuals up to EUR 500 from the sale of shares or other securities, e.g. notes, may be tax exempt). Losses from the sale of the notes will only be tax deductible if the conditions prescribed by Slovak Income Tax Act are met.

Income of individuals who are Slovak tax residents realised from the sale of shares or other securities (e.g. notes) traded on a regulated or similar foreign market may be tax exempt if a holding period exceeds one calendar year and if the period between admission of such notes to the regulated or similar foreign market and their sale exceeds one calendar year, provided that the shares or securities were not included in the business assets of the individual.

If the income related to sale of the notes is paid by the paying agent resident or having a permanent establishment in the Slovak Republic, there is a high risk that such income paid (i) to a taxable party not

established or founded to conduct business (e.g., associations of legal entities, chambers of professionals, civic associations, including trade union organizations, political parties and movements, churches and religious communities recognized by the State, etc.), or (ii) to the National Bank of Slovakia could be subject to the 19% withholding tax (self-assessed by these taxpayers).

Revaluation differences

Slovak tax residents that prepare their financial statements under the Slovak Accounting Standards or under the International Financial Reporting Standards may be required to reevaluate the notes to fair value for accounting purposes, whereby the revaluation would be accounted for as revenue or expense. Such revenue is generally taxable and the corresponding expense should be generally tax deductible for Slovak tax purposes.

EU Savings Directive

Under Directive 2003/48/EC on the taxation of savings income (the "Directive 2003/48/EC") that has been implemented into Slovak law, Member States are required to provide to the tax authorities of another Member State details of payments of interest (as defined in the Savings Directive) made by a paying agent (as defined in the Savings Directive) within its jurisdiction to an individual resident in that other Member State. On 10 November 2015, the Council of the European Union adopted Council Directive (EU) 2015/2060 of 10 November 2015, repealing the Directive 2003/48/EC, with effect from 1 January 2016 (the "**Directive 2015/2060/EU**"). Certain provisions of the Directive 2003/48/EC will continue to be effective during 2016 and Austria will continue to apply the Directive 2003/48/EC until 31 December 2016. The repeal of the Directive 2003/48/EC is aimed at preventing overlap between the EU Savings Tax Directive and a new automatic exchange of information regime to be implemented under Council Directive 2011/16/EU on Administrative Cooperation in the field of Taxation (as amended by later Council Directives).

Responsibility for Withholding of Taxes

The Issuer is generally not liable for the withholding of taxes at source. Withholding tax is levied by a Slovak custodian or paying agent.

Inheritance and Gift Tax

In Slovakia, inheritance and gift tax has been abolished as of 2004.

Other applicable taxes

No Slovak stamp duty, registration, transfer or similar tax will be payable in connection with the acquisition, ownership, sale or disposal of the notes. Certain immaterial registration fees may however be applicable.

SPAIN

The following is a general description of the Spanish withholding tax treatment, direct and indirect taxation of payments under the notes. The statements herein regarding Spanish taxes and withholding taxes in Spain are made assuming that the Issuer is not a Spanish resident entity nor does it act through a permanent establishment in Spain, and are based on the laws in force as well as administrative interpretations thereof in Spain as of the date of this Base Prospectus and are subject to any changes in law occurring after such date, which changes could be made on a retroactive basis. It does not purport to be a complete analysis nor a comprehensive description of all tax considerations relating to the notes, whether in Spain or elsewhere, which may be relevant to a decision to subscribe for, purchase, own or dispose of the notes and does not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities or commodities) may be subject to special rules. Prospective purchasers of the notes should consult their own tax advisers as to which countries' tax laws could be relevant to acquiring, holding and disposing of the notes and receiving payments of interest, principal and/or other amounts under the notes and the consequences of such actions under the tax laws of Spain.

Personal Income Tax ("PIT") / Corporate Income Tax ("CIT") / Non Resident Income Tax ("NRIT")

(A) Spanish resident individuals

(i) Interest payments under the notes

Income earned by Spanish resident individuals under notes should qualify as interest payments. In general, interest payments obtained by Spanish resident individuals should be subject to withholding tax at 19% rate on account of PIT (creditable against final tax liability). Expenses relating to the management and deposit of the notes, if any, will be tax-deductible, excluding those pertaining to discretionary or individual portfolio management. Notwithstanding the above, as non-resident in Spain entities not acting through a permanent establishment are not bound to withhold on account of PIT on payments made to Spanish resident individuals, interest payments under notes should be only subject to withholding tax in Spain in case they are deposited in a depositary entity or individual resident in Spain (or acting through a permanent establishment in Spain) or if an entity or individual resident in Spain (or acting through a permanent establishment in Spain) is in charge of the collection of the income derived from the notes, provided that such income had not been previously subject to withholding tax in Spain.

Notwithstanding the above, Spanish resident individuals earning such income will still be subject to PIT – to be declared in their annual tax returns – according to the following rates:

- Amounts up to EUR 6,000.00: 19%.
- Amounts between EUR 6,000.01 and EUR 50,000: 21%.
- Amounts between EUR 50,000.01 and EUR 200,000: 23%.
- Amounts between EUR 200,000.01 and EUR 300,000: 27%.
- Amounts exceeding EUR 300,000: 28%.

However, when certain income included in the taxpayer's taxable base has already been taxed abroad, the taxpayer shall be entitled to a tax credit against the PIT taxable base for the lowest amount of the following: (i) the amount effectively paid abroad; and (ii) the amount resulting from applying the average tax rate to the taxable base effectively taxed abroad.

(ii) Income upon transfer or redemption of the notes

Income earned upon transfer or redemption of the notes should be subject to Spanish withholding tax at a rate of 19% on account of PIT (creditable against final tax liability). Notwithstanding this, as non-resident in Spain entities not acting through a permanent establishment are not bound to withhold on account of PIT on payments made to Spanish resident individuals, income upon transfer or redemption of the notes should be subject to withholding tax in Spain only if there is a financial entity acting on behalf of the seller, provided such entity is resident for tax purposes in Spain or has a permanent establishment in the Spanish territory.

However, when the notes (i) are represented in book-entry form; (ii) are admitted to trading on a Spanish secondary stock exchange; and (iii) generate explicit yield, holders can benefit from a withholding tax exemption in respect of the income arising from the transfer or reimbursement of the notes, exception made of income derived from accounts entered into with financial entities, provided that such accounts are based on financial instruments, such as notes. However, under certain circumstances, when a transfer of the notes has occurred within the 30-day period immediately preceding any relevant coupon payment date such holders may not be eligible for such withholding tax exemption.

Notwithstanding the above, Spanish resident individuals earning such income will still be subject to PIT, to be declared in their annual tax returns, according to the following rates:

- Amounts up to EUR 6,000.00: 19%.
- Amounts between EUR 6,000.01 and EUR 50,000: 21%.
- Amounts between EUR 50,000 and EUR 200,000: 23%.
- Amounts between EUR 200,000.01 and EUR 300,000: 27%.
- Amounts exceeding EUR 300,000: 28%.

However, when certain income included in the taxpayer's taxable base has already been taxed abroad, the taxpayer shall be entitled to a tax credit against the PIT taxable base for the lowest amount of the following: (i) the amount effectively paid abroad; and (ii) the amount resulting from applying the average tax rate to the taxable base effectively taxed abroad.

(B) Spanish resident companies

Interest payments under the notes shall be subject to withholding tax at a rate of 19% on account of CIT (creditable against final tax liability). Notwithstanding this, as non-resident in Spain entities not acting through a permanent establishment are not bound to withhold on account of CIT on payments made to Spanish resident entities, interest payments under notes should be only subject to withholding tax in Spain in case they are deposited in a depositary entity resident in Spain (or acting through a permanent establishment in Spain) or if an entity or individual resident in Spain (or acting through a permanent establishment in Spain) is in charge of the collection of the income derived from the notes, provided that such income had not been previously subject to withholding tax in Spain.

Income upon transfer or redemption of the notes should be subject to Spanish withholding tax at a rate of 19% on account of CIT (creditable against final tax liability). Notwithstanding this, as non-resident in Spain entities not acting through a permanent establishment are not bound to withhold on account of CIT on payments made to Spanish resident entities, income upon transfer or redemption of the notes should be subject to withholding tax in Spain only if there is a financial entity acting on behalf of the seller, provided such entity is resident for tax purposes in Spain or has a permanent establishment in the Spanish territory.

However, when (i) the notes are represented in book-entry form and are admitted to trading on a Spanish secondary stock exchange or on the Spanish Alternative Fixed Income Market (*MARF*); or (ii) the notes are listed on a market in an OECD member state; holders who are corporate income taxpayers can benefit from a withholding tax exemption in respect of interest payments and income arising from the transfer or redemption of the notes, exception made of income derived from accounts entered into with financial entities, provided that such accounts are based on financial instruments, such as notes.

Spanish resident companies earning such income will be subject to CIT, to be declared in their annual tax returns, at a general rate of 25% (or 23% in respect of companies that belong to a corporate group with an annual turnover lower than EUR 1 million in the previous tax year). However, when certain income included in the taxpayer's taxable base has already been taxed abroad, the taxpayer shall be entitled to a tax credit against the CIT taxable base for the lowest amount of the following: (i) the amount effectively paid abroad; and (ii) the amount that should have been paid in Spain in the case that such income had been obtained in Spain. Taxpayers with an annual net turnover higher than EUR 20 million or taxpayers that are taxed jointly under a CIT group will be subject to a minimum 15% effective CIT rate of the adjusted taxable base (additional requirements or limitations may apply depending on the nature and circumstances of a given taxpayer).

(C) Individuals and companies with no tax residency in Spain

(i) Income obtained through a permanent establishment

Ownership of the notes by investors who are not resident for tax purposes in Spain will not in itself create the existence of a permanent establishment in Spain.

The tax rules applicable to income deriving from the notes under NRIT in this scenario are, generally, the same as those previously set out for Spanish resident companies, subject to the provisions of any relevant double tax treaty.

(ii) Income obtained without a permanent establishment

Income obtained by investors residing outside Spain and without a permanent establishment within the Spanish territory would not be considered, in general terms, as Spanish-source income and, therefore, would not be subject to taxation and withholding tax in Spain.

According to binding ruling V0185-20 issued by the Spanish General Directorate of Taxes on 27 January 2020, certain securities (such as financial derivatives) may be classified, for the purposes of the relevant double tax treaty, as business profits or other income and, as mentioned above, should not be considered, in general terms, as Spanish-source income, subject to the provisions of any relevant double tax treaty.

Net Wealth Tax ("NWT")

Only individual holders of notes would be subject to the NWT as legal entities are not taxable persons under NWT.

Relevant taxpayers will be (i) individuals who have their habitual residence in Spain regardless of the place where their assets or rights are located or could be exercised; and (ii) non-Spanish resident individuals owning assets or rights which are located or could be exercised in Spain, in each case, whose net wealth is higher than EUR 700,000, as this amount is considered as exempt from NWT.

Taxpayers should include in their NWT self-assessment the notes (assuming they qualify as debt instruments) for the following amounts:

(i) if they are listed in an official market, the average negotiation value of the fourth quarter; and

(ii) in other case, its nominal value (including redemption premiums).

The value of the notes together with the rest of the taxpayer's wealth, once reduced by the deductible in rem liens and encumbrances which reduce the rights and assets values and the personal debts of the taxpayer, shall be taxed at a tax rate between 0.2% and 3.5%.

Finally, please note that the Spanish regions are entitled to modify (i) the threshold of net wealth exempt from taxation; (ii) the tax rates; and (iii) the tax benefits and exemptions to be applied in their territory.

Non-resident individuals may apply the rules approved by the autonomous region where the assets and rights with more value (i) are located, (ii) can be exercised or (iii) must be fulfilled.

Temporary Solidarity Tax on Large Fortunes ("STLF")

STLF is a NWT's complementary tax levied on individuals with a net worth of more than EUR 3,000,000 who are also subject to NWT.

Individuals whose tax residence is located in Spain will be entitled to a EUR 700,000 rebate on their taxable base and to deduct taxes paid abroad, with certain limitations. This rebate is not available for non-resident taxpayers.

The value of the Securities together with the rest of the taxpayer's net wealth (exceeding EUR 3,000,000) shall be taxed at a tax rate between 1.7% and 3.5%.

The STLF, NWT and PIT tax quotas combined, in the case of taxpayers whose tax residence is located in Spain, shall not exceed the 60% of the PIT's taxable bases.

As STLF has been conceived as a temporary tax, it will only accrue on 31 December of 2022 and of 2023 but could be extended to subsequent tax years if deemed appropriate.

Inheritance and Gift Tax ("IGT")

(A) Individuals with tax residency in Spain

Individuals resident in Spain who acquire ownership or other rights over notes by inheritance, gift or legacy will be subject to IGT. The applicable effective tax rates range between 7.65% and 81.6%, depending on several factors such as family relationship and pre-existing heritage. However, it is necessary to take into account that the IGT (including certain tax benefits) has been transferred to the Spanish regions. Therefore, an analysis must be made in each specific case to determine to what extent any regional legislation might be applicable, since there might be differences in respect of the final taxation under IGT depending on the region in which an investor resides.

(B) Companies with tax residency in Spain

Companies resident in Spain which acquire ownership or other rights over the notes by inheritance, gift or legacy are not subject to IGT, as income obtained will be subject to CIT.

(C) Individuals and companies with no tax residency in Spain

Non-Spanish resident individuals and companies which are not resident in Spain and do not have a Spanish permanent establishment that acquire ownership or other rights over the notes by inheritance, gift or legacy, will not be subject to IGT provided that the notes were not located in Spain and the rights deriving from them could not be exercised within Spanish territory.

The acquisition of notes by inheritance, gift or legacy by non-resident companies with a permanent establishment within the Spanish territory is not subject to the IGT, as income obtained will be subject to the NRIT.

Value Added Tax, Transfer Tax and Stamp Duty

Acquisition and transfer of notes, in principle, shall not trigger Transfer Tax and Stamp Duty, nor will they be taxable under Value Added Tax.

Spanish Financial Transactions Tax ("FTT")

The acquisition of shares of a Spanish listed company trading on a regulated market in Spain, any other Member State of the European Union, or on a market in a third country if the market is considered to be equivalent, with a market capitalization greater than 1,000 million euros ("Qualifying Shares") and the acquisition of certificates of deposit representing Qualifying Shares ("Qualifying Certificates"), such as American depositary receipts, regardless of the type of market or trading centre where the trades are executed (regulated market, multilateral trading facility, systematic internaliser; or OTC transactions), are subject, save for certain exceptions, to Spanish FTT at a rate of 0.2% of the corresponding acquisition price (excluding the costs and expenses associated to such transaction).

In addition to the above, the acquisition of Qualifying Shares and Qualifying Certificates under the execution or settlement of convertible or exchangeable bonds or debentures, of derivatives, as well as of any financial instrument, or of certain financial contracts, are also subject to the Spanish FTT.

SWEDEN

Swedish Withholding Tax

There is no Swedish withholding tax at source (*källskatt*) applicable on payments made by the issuer in respect of the notes. However, Sweden operates a system of preliminary tax (*preliminärskatt*) to secure payment of taxes. In the context of the notes a preliminary tax of 30% will be deducted from all payments of interest in respect of the notes made to any individuals, or estates, that are resident in Sweden for tax purposes provided the paying entity is subject to reporting obligations. A preliminary tax of 30% will also be deducted from any other payments in respect of the notes not treated as capital gains, if such payments are paid out together with payments treated as interest. Depending on the relevant holder's overall tax liability for the relevant fiscal year the preliminary tax may contribute towards, equal or exceed the holder's overall tax liability with any balance subsequently to be paid by or to the relevant holder, as applicable.

UNITED KINGDOM

The following comments are of a general nature, relating only to the position of persons who are absolute beneficial owners of the notes and are based on United Kingdom law in force in England and Wales and what is understood to be the current practice of Her Majesty's Revenue & Customs ("HMRC"), in each case at the date of this Base Prospectus, which may change at any time, possibly with retrospective effect. The following is a general overview only as at the date hereof of the UK withholding taxation treatment in relation to income payments in respect of the notes; certain provisions allowing HMRC to obtain and exchange information; and UK stamp duty and stamp duty reserve tax as it relates to the notes. The comments are not exhaustive, and do not deal with other UK tax aspects of acquiring, holding, disposing of or abandoning the notes.

Interest payments

Interest will only be subject to a deduction on account of UK income tax if it has a UK source in which case it may fall to be paid under deduction of UK income tax at the basic rate (currently 20%) subject to such relief as may be available under the provisions of any applicable double taxation treaty or to any other exemption which may apply.

The location of the source of a payment is a complex matter. It is necessary to have regard to case law and HMRC practice. Case law has established that in determining the source of interest, all relevant factors must be taken into account.

Where interest has a UK source, any payment of interest may nonetheless be made without withholding or deduction for or on account of UK income tax where any of the following conditions are satisfied:

(i) if the notes are and continue to be "quoted Eurobonds" as defined in section 987 of the Income Tax Act 2007. The notes will constitute "quoted Eurobonds" if they carry a right to interest and are and continue to be listed on a "recognised stock exchange" within the meaning of section 1005 of the Income Tax Act 2007. Notes admitted to trading on a "recognised stock exchange" outside the United Kingdom will be treated as "listed" on a "recognised stock exchange" if (and only if) they are admitted to trading on that exchange and they are officially listed in accordance with provisions corresponding to those generally applicable in European Economic Area states in a country outside the United Kingdom in which there is a "recognised stock exchange" (the Luxembourg Stock Exchange is a "recognised stock exchange" for these purposes); or

(ii) if the relevant interest is paid on notes with a maturity date of less than one year from the date of issue and which are not issued under arrangements the effect of which is to render such notes part of a borrowing with a total term of a year or more.

The references to "interest" above mean "interest" as understood in UK tax law and in particular any premium element of the redemption amount of any notes redeemable at a premium may constitute a payment of interest subject to the withholding tax provisions discussed above and reporting requirements as outlined below. The statements above do not take any account of any different definitions of "interest" or "principal" which may prevail under any other law or which may be created by the terms and conditions of the notes or any related documentation.

Other payments

Payments under the notes which do not amount to interest or annual payments for the purposes of UK tax will normally not be subject to UK withholding tax.

Information Exchange

HMRC has powers, in certain circumstances, to obtain information. The persons from whom HMRC can obtain information include: a person who receives (or is entitled to receive) a payment derived from notes; a person who makes such a payment (received from, or paid on behalf of another person); a person by or through whom interest is paid or credited; a person who effects or is a party to transactions in respect of notes (which includes an issue of notes) on behalf of others; registrars or administrators in respect of transactions in respect of notes; and each registered or inscribed holder of notes. The information HMRC can obtain includes: details of the beneficial owner of the notes; details of the person for whom the notes are held, or the person to whom the payment is to be made (and, if more than one, their respective interests); information and documents relating to transactions in the notes; and, in relation to interest paid or credited on money received or retained in the United Kingdom, the identity of the security under which interest is paid.

In certain circumstances the information which HMRC has obtained using these powers may be exchanged with tax authorities in other jurisdictions.

Stamp duty and stamp duty reserve tax

Issue of Notes

No UK stamp duty or stamp duty reserve tax ("SDRT") should be payable on the issue of notes.

For the purposes of this UK tax section, the clearing systems run by Euroclear and Clearstream, Luxembourg constitute a "clearance service".

Transfers of notes

Transfers of interests in notes held through a clearance service do not attract UK stamp duty or SDRT provided that no election under section 97A of the Finance Act 1986 has been made.

Where notes do not comprise exempt loan capital and are not held through a clearance service, then, where the notes are registered in a register kept in the United Kingdom by or on behalf of the issuer, agreements to transfer such notes may attract SDRT at a rate of 0.5% of the chargeable consideration (or, in certain circumstances in the case of a transfer between connected persons, the market value of the notes transferred, if higher).

In addition, stamp duty at a rate of 0.5% may arise in respect of any document transferring any note that does not comprise exempt loan capital and where any instrument of transfer is executed in the United Kingdom or relates to notes situated in or to any matter or thing done or to be done in the United Kingdom. However, where a liability to stamp duty is paid in relation to a transfer of notes within six years of a liability to SDRT arising in relation to the agreement pursuant to which the notes are transferred, the liability to SDRT will be cancelled or repaid as appropriate.

The notes will constitute "exempt loan capital" if the notes constitute "loan capital" (as defined in section 78 Finance Act 1986) and do not carry (and in the case of (ii)-(iv) below have never carried) any one of the following four rights:

(i) a right for the holder of the notes to opt for conversion into shares or other securities or to acquire shares or other securities, including loan capital of the same description;

(ii) a right to interest the amount of which exceeds a reasonable commercial return on the nominal amount of the capital;

(iii) a right to interest the amount of which falls or has fallen to be determined to any extent by reference to the results of, or of any part of, a business or to the value of any property (other than a right to interest that reduces in the event of the results of a business or part of a business improving, or the value of any property increasing, or increases in the event of the results of a business or part of a business deteriorating, or the value of any property diminishing); or

(iv) a right on repayment to an amount which exceeds the nominal amount of the capital and is not reasonably comparable with what is generally repayable (in respect of a similar nominal amount of capital) under the terms of issue of loan capital listed in the Official List of the London Stock Exchange.

FORM OF FINAL TERMS (Series F Notes)

[PROHIBITION OF SALES TO EEA RETAIL INVESTORS - The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (the "EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the "Prospectus Regulation"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.]

[PROHIBITION OF SALES TO UK RETAIL INVESTORS – The notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom (the "UK"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("EUWA"); or (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 ("FSMA") and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or (iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the "UK PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.]

[Notwithstanding the foregoing, if the Issuer subsequently prepares and publishes a key information document under the PRIIPs Regulation or UK PRIIPs Regulation in respect of the notes, then the prohibition on the offering, sale or otherwise making available of the notes to retail investors as described above shall no longer apply.]

[*Insert the following additional language in case of an offer in Switzerland*: The notes do not constitute a participation in a Collective Investment Scheme within the meaning of the Swiss Federal Act on Collective Investment Schemes ("CISA"). The notes 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.]

[*Insert in case of a public offering in Switzerland requiring a prospectus*: These Final Terms must be read together with the Base Prospectus which has been included as a foreign prospectus that is deemed approved also in Switzerland pursuant to article 54 para. 2 of the Swiss Federal Act on Financial Services ("Financial Services Act"; "FinSA") by SIX Exchange Regulation Ltd. as reviewing body (Prüfstelle) in the list of approved prospectuses and deposited with it and published pursuant to article 64 FinSA. These Final Terms will also be deposited with SIX Exchange Regulation Ltd. as reviewing body and published pursuant to article 64 FinSA.]

Final Terms No. [●] to the Base Prospectus dated April 14, 2023[, as supplemented]

The Goldman Sachs Group, Inc.

Euro Medium-Term Notes, Series F

Legal Entity Identifier (LEI): 784F5XWPLTWKTBV3E584

[Title of [[Fixed Rate [(Zero Coupon)] [(Discount)]] [/] [Floating Rate] [/] [Indexed (Range Accrual)] [Indexed (Steepener/Flattener)] [Indexed (Asian [Absolute] Performance)] [Indexed (Digital)] [Indexed (Outperformance)] [Indexed (Participation) [UDI-Linked]] notes]

Contractual Terms:

[Terms used herein shall be deemed to be defined as such for the purposes of the General Note Conditions set forth in the base prospectus dated April 14, 2023[, as supplemented by Prospectus Supplement No. [•] [. . .]] (the "Base Prospectus"), which is a base prospectus for the purposes of the Prospectus Regulation. This document constitutes the Final Terms of the Notes described herein for the purposes of the Prospectus Regulation and must be read in conjunction with such Base Prospectus. [*Insert for an offering where there is to be no offering or listing in the EEA*: provided that the Prospectus Regulation does not apply in respect of the particular offer [and listing] of the Notes described herein since the Notes are not being offered or listed within the European Economic Area.] Full information on the Issuer and the offer of the Notes is only available on the basis of the combination of these Final Terms and the Base Prospectus.]

[*The following alternative language applies if the first tranche of an issue which is being increased was issued under a Base Prospectus with an earlier date*]

Terms used herein shall be deemed to be defined as such for the purposes of the General Note Conditions set forth in the base prospectus dated [April 15, 2022, as supplemented by prospectus supplement no 1 thereto, dated May 4, 2022] [April 15, 2021, as supplemented by prospectus supplement no. 1 thereto, dated May 5, 2021, and prospectus supplement no. 3 thereto, dated August 4, 2021] [April 15, 2020, as supplemented by prospectus supplement no. 1 thereto, dated May 4, 2020] [April 16, 2019, as supplemented by prospectus supplement no. 6 thereto, dated January 15, 2020, prospectus supplement no. 3 thereto, dated August 6, 2019, and prospectus supplement no.2 thereto, dated July 18, 2019] [April 19, 2018, as supplemented by prospectus supplement no. 2 thereto, dated June 22, 2018] [April 20, 2017, as supplemented by prospectus supplement no. 7 thereto, dated November 3, 2017] [April 21, 2016, as supplemented by prospectus supplement no. 9 thereto dated January 13, 2017] [June 5, 2015] [June 5, 2014] [June 10, 2013] [June 8, 2012] [June 10, 2011, as supplemented by prospectus supplement no. 3 thereto dated October 19, 2011] [June 11, 2010] which [is/are] incorporated by reference in the Base Prospectus dated April 14, 2023, as it may be supplemented (the "Base Prospectus"), which is a base prospectus for the purposes of the Prospectus Regulation including the terms and conditions incorporated by reference in the Base Prospectus. This document constitutes the Final Terms of the Notes described herein for the purposes of the Prospectus Regulation and must be read in conjunction with such Base Prospectuses. Full information on the Issuer and the offer of the Notes is only available on the basis of the combination of these Final Terms and the Base Prospectuses. [*Insert for straddle offers*: Subject as provided below, full] [Full] information on the Issuer and the offer of the Notes is only available on the basis of the combination of these Final Terms and the Base Prospectuses.]

The Base Prospectus is available for viewing at www.luxse.com and during normal business hours at the registered office of the Issuer, and copies may be obtained from the specified office of the Paying Agent in Luxembourg. [These Final Terms are available for viewing at www.luxse.com [*Include where the notes are to be admitted to trading on the Luxembourg Stock Exchange*] / [●] [*insert other website if the notes will not be admitted to trading on the Luxembourg Stock Exchange and the Final Terms will be published elsewhere*].]

[*Insert the following additional language into the initial set of final terms for straddle offers for which two sets of final terms will be published*: **The Offer Period for the Notes extends beyond the validity of the Base Prospectus, which will expire on April 14, 2024 (the "Expiry Date")**. On or prior to this date, a successor base prospectus in respect of the Series F euro medium-term notes program (the "Successor Base Prospectus") and successor Final Terms for the Notes (the "Successor Final Terms") will be published. From and including the date on which the Successor Base Prospectus is approved by the Commission de Surveillance du Secteur Financier, (i) the Successor Final Terms shall constitute Final Terms for the Notes for the purposes of Article 8(4) of the Prospectus Regulation and (ii) full information on the Issuer and the offer of the Notes shall only be available on the basis of the combination of the Successor Final Terms and the Successor Base Prospectus. The Successor Base Prospectus will be available for viewing at www.luxse.com and during normal business hours at the registered office of the Issuer, and copies may be obtained from the specified office of the Paying Agent in Luxembourg. The Successor Final Terms will be published at [www.luxse.com] [*Include where the notes are to be admitted to trading on the Luxembourg Stock Exchange*] / [●] [*insert other website if the notes will not be admitted to trading on the Luxembourg Stock Exchange and the Final Terms will be published elsewhere*].]

[*Insert the following additional language into the initial set of Final Terms for straddle offers for which a single set of Final Terms will be published*: **The Offer Period for the Notes extends beyond the validity of the Base Prospectus which will expire on April 14, 2024 (the "Expiry Date")**. On or prior to this date, a successor base prospectus in respect of the Series F euro medium-term notes program (the "Successor Base Prospectus") will be published. From and including the date on which the Successor Base Prospectus is approved by the Commission de Surveillance du Secteur Financier, (i) these *Final Terms* must be read in conjunction with the Successor Base Prospectus and (ii) full information on the Issuer and the offer of the Notes shall only be available on the basis of the combination of these *Final Terms* and the Successor Base Prospectus. The Successor Base Prospectus will be available for viewing at www.luxse.com and during normal business hours at the registered office of the Issuer, and copies may be obtained from the specified office of the Paying Agent in Luxembourg. [*Include where the notes are to be admitted to trading on the Luxembourg Stock Exchange*] / [●] [*insert other website if the notes will not be admitted to trading on the Luxembourg Stock Exchange and the Final Terms will be published elsewhere*].]

[*Insert the following additional language into a successor set of Final Terms for straddle offers in which two sets of Final Terms will be published:* The offer of the notes to which these *Final Terms* relate commenced on [●], and these *Final Terms* and the Base Prospectus are the Successor *Final Terms* and the Successor Base Prospectus, respectively, referred to in the *Final Terms* dated [●]].

[*If the Notes have a denomination of at least EUR 100,000, then this sentence should be deleted.*] A summary of the Notes is attached to these *Final Terms*.

[Specify whether each of the items below is applicable or not applicable. Italics denote guidance for completing Final Terms.]

Tranche Number	[F-●] [*If fungible with an existing tranche, include the date on which the Notes become fungible*]
Face Amount (Aggregate Notional Amount)	[●] [*If fungible with an existing tranche, specify the face amount of this tranche and the entire face amount of all fungible tranches*]
Denomination	[●]
Minimum Investment	[●] [Not applicable]
Type of Note	[[Fixed Rate [(Zero Coupon)] [(Discount)]] [/] [Floating Rate] [/] [Indexed (Range Accrual)] [Indexed (Steepener/Flattener)] [Indexed (Asian [Absolute] Performance)] [Indexed (Digital)] [Indexed (Outperformance)] [Indexed (Participation)] [UDI-Linked]] Series F note
Specified Currency	[●]
Trade Date	[●]
Original Issue Date	[●] [*If fungible with an existing tranche, specify the original issue dates of all fungible tranches*]

ISIN Code	[●]
Common Code	[●]
[Financial Short Name ("FISN")	*If applicable* [●]]
[Classification of Financial Instruments ("CFI") Code	*If applicable* [●]]
[WKN	*If applicable* [●]]
[Valoren Number	*If applicable* [●]]
Stated Maturity Date	[●]
Original Issue Price	[●] per cent. of the Face Amount [plus accrued interest from [*insert date*] (*if applicable*)].
Net Proceeds to Issuer	[Up to] [●] per cent. of the Face Amount
Original Issue Discount	[Not Applicable] [Applicable] [*If Not Applicable, delete the remainder of this row.*] [*If Discount Note:* **OID**: [●]%] **Accretion Date**: [●] each year **Accretion Rate**: [●]% per annum
Amount Payable at Maturity (Final Redemption Amount)	[*If Indexed (Participation) Notes and UDI-Linked Notes are Not Applicable:* [[100]%[insert number greater than 100]% of the Face Amount outstanding on the Stated Maturity Date]] **Indexed (Participation) Notes**: [Applicable][Not Applicable] [If Indexed (Participation) Notes is Applicable. Select the applicable provisions for each and delete the remainder. For all other notes, delete the remainder of this row.] See "General Note Conditions — Redemption and Repayment — Redemption at Maturity — Indexed (Participation) Notes" in the Base Prospectus **Index:** [●] **Index Sponsor:** [●] **Index Currency**: [●] **Index Valuation Time**: [●] **Capped Participation:** [Applicable][Not Applicable] **FX Participation:** [Applicable][Not Applicable][If Not Applicable, delete the following sub-paragraphs] (i) **FXR**: [Non-Inverse Return][Inverse Return] (ii) **FX (Initial)**: [[●] / The Specified Rate] (iii) **FXR Cap**: [[●] / Expected to be [●] [but shall not be [more than [●]] [and] [less than [●]]] / Not Applicable] (iv) **FXR Floor:** [●] / Expected to be [●] [but shall not be [more than [●]] [and] [less than [●]] (v) **Reference Currency**: [*insert currency*] (vi) **Base Currency**: [*insert currency*] (vii) **Specified Rate**: [Official fixing rate / Official mid closing rate / Spot rate / Mid rate / Fixing rate]. (viii) **Fixing Price Sponsor**: [●] (ix) **Valuation Time**: [*insert time*] (x) FX Price Source: [●] **Maturity Lock-In**: [Applicable][Not Applicable] [*If Maturity Lock-In is "Applicable",* **Lock-In Amount**: [100]%[*insert number greater than 100*]% of the Face Amount outstanding on the Stated Maturity Date]. **Nominal Amount (N):** [●] **Participation:** [[If Reference Price (Final) is [*greater*]/[*less*] *than* [*or equal to*] [Reference Price (Initial)]/[●], [●]; otherwise,] [●] / Expected to be [●] [but shall not be [more than [●]] [and] [less than [●]]]]. **Cap:** [[●] / Expected to be [●] [but shall not be [more than [●]] [and] [less than [●]]] / Not Applicable].

Floor: [[If Reference Price (Final) is [*greater*]/[*less*] *than* [*or equal to*] [Reference Price (Initial)]/[●], [●]; otherwise,] [●] / Expected to be [●] [but shall not be [more than [●]] [and] [less than [●]]]].
Strike: [●]
Reference Price (Initial): [[●] / Initial Reference Price / Initial Average Price/ Initial Highest Price / Initial Lowest Price]].
Valuation Date: [[●]/Not Applicable].
Initial Valuation Date: [[●]/Not Applicable].
Averaging: [Applicable/Not Applicable]. [*If Not Applicable, delete the following sub-paragraphs*]

(i) **Averaging Dates:** [[●] / Not Applicable].
(ii) **Initial Averaging Dates**: [[●] / Not Applicable].
(iii) **Last Averaging Date:** [[●] / Not Applicable].
(iv) **Last Initial Averaging Date:** [[●] / Not Applicable].
(v) **Averaging Postponement:** [Postponement][Modified Postponement]

Initial Observation Period: [Applicable/Not Applicable]
[*If Initial Observation Period is "Applicable",*
Initial Observation Dates: [*insert dates*].
Final Observation Period: [Applicable/Not Applicable]
[*If Final Observation Period is "Applicable",*
Observation Level: [Lowest][Highest].
Final Observation Dates: [●]
Maximum Days of Postponement: [[8][●][Business Days]]

UDI-Linked Notes: [Applicable][Not Applicable]
[*If UDI-Linked Notes is Applicable, select the applicable provisions for each and delete the remainder. For all other notes, delete the remainder of this row*.]
Amount Payable at Maturity: An amount in MXN equal to the *product of* (1) the UDI-Linked Notional Amount *times* (2) the UDI Index Level on the Observation Date *times* (3) [[100%][●]%] [*insert following provision where "UDI-Linked Floor" is specified as "100% of the Face Amount"*][; provided that, if such amount is less than 100% the Face Amount, the Amount Payable at Maturity shall be an amount in MXN equal to 100% of the Face Amount]
UDI-Linked Floor: [Not Applicable][100% of the Face Amount]
Index: Unidades de Inversión (UDI) or any successor or replacement index; see page [●]
Initial Index Level: [●]
[**Implied ZC Rate**: [●]]
UDI-Linked Notional Amount: The Face Amount of your note *divided by* the Initial Index Level[, rounded to [●] decimal places,] being [●]
Observation Date: The date [●] Business Days prior to the Stated Maturity Date

Yield to Maturity

[Not Applicable] [*Fixed Rate notes only:* [●]%]

Interest Rate Note Provisions

[Not Applicable] [Applicable]
[If Not Applicable, delete the remainder of this row. If applicable, select the applicable interest rate provisions for each Interest Payment Date and delete the remainder. Repeat as required.]

For [all][the] Interest Payment Date[s] Scheduled for [●] [and][through] [●]
Fixed Rate: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*] See "General Note Conditions — Interest Rates — Fixed Rate Notes" **Interest Rate:** ●% per annum **Interest Payment Dates:** [*specify*] **Day Count Fraction:** 1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

Floating Rate: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Interest Rates — Floating Rate Notes"
Interest Rate: A rate per annum equal to the Base Rate [*multiplied by* the Spread Multiplier][*plus* the Spread][subject to the] [Minimum Rate][and][the Maximum Rate]]
Base Rate Type: [Term Rates] [Overnight Rates] [CMS Reference Rates]

[*If* **Base Rate Type** *is Term Rates,*
Base Rate: [●]
Screen Term Rate Determination: [Applicable]/ [Not Applicable]
Applicable Reference Rate: [●]
Relevant Screen Page: [●]
Relevant Time: [●]
Underlyer Maturity: [Three month] [Six month] [1 year] [*specify*]
Underlyer Currency: [EUR] [USD] [*specify*]
Principal Financial Center: [●]]

[*If* **Base Rate Type** *is Overnight Rates,*
Base Rate: [●]
Calculation Method: [Compounded Daily (Non-Index Determination)] [Weighted Average] [Compounded Daily (Index Determination)]
Observation Method: [Lag] [Lock-out] [Shift]
[**Observation Look-back Period:** [●]]
[**Lock-out Date:** [●]]
[**Relevant Number**: [●]]
[**Relevant Screen Page:** [●]]
Calculation Business Days: [*specify*]
Day Count Basis: [●]
Compounded Overnight Rate Rounding: [●]]

[*If* **Base Rate Type** *is CMS Reference Rates,*
CMS Interest Rate: [Single CMS Rate] [Spread CMS Rate]

	[CMS Reference Rate 1] (*If CMS Interest Rate is "Spread CMS Rate", insert this heading*)	[CMS Reference Rate 2] (*If CMS Interest Rate is "Spread CMS Rate", insert this column*)
Relevant Swap Rate:	[●]	[●]
Reference Currency:	[●]	[●]
Designated Maturity:	[●]	[●]
Relevant Screen Page:	[●]	[●]
Relevant Time:	[●]	[●]
Relevant Financial Centre:	[●]	[●]
Temporary Non-Publication Fallback:	[Calculation Agent Discretion] [Reference Banks Quotation]	

[**Minimum Rate:** ●%]
[**Maximum Rate:** ●%]
[**Spread:** [●]% per annum][Not Applicable]
[**Spread Multiplier:** [●]% per annum]
[**Compounding Interest:** [Applicable][Not Applicable]]
[**Base Rate 0% Floor:** [Applicable][Not Applicable]]
Interest Determination Dates:[*specify*]
Interest Reset Dates: [The first day of the Interest Period]
Interest Payment Dates: [*specify*]

Original Primary Rate Fallback: [Applicable][Not Applicable]
Day Count Fraction: [[1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

Steepener / Flattener: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Indexed Notes — Interest Rate Formulae — Steepener and Flattener Notes"
Base Rate 1: [*insert base rate*]
Base Rate 1 Maturity: [Three month] [Six month] [1 year] [*specify*]
Base Rate 1 Currency: [EUR] [USD] [*specify*]
Base Rate 1 Screen Page: [*specify*]
Base Rate 1 Multiplier: [1][*specify*]
Base Rate 1 Interest Determination Dates: [*specify*]
Base Rate 2: [*insert base rate*]
Base Rate 2 Maturity: [Three month] [Six month] [1 year] [*specify*]
Base Rate 2 Currency: [EUR] [USD] [*specify*]
Base Rate 2 Screen Page: [*specify*]
Base Rate 2 Multiplier: [1][*specify*]
Base Rate 2 Interest Determination Dates: [*specify*]
Comparison Base Rate: [Applicable][Not Applicable]
[*If* **Comparison Base Rate** *is "Applicable",*
Comparison Base Rate: [*insert base rate*]
Comparison Base Rate Maturity: [Three month] [Six month] [1 year] [*specify*]
Comparison Base Rate Currency: [EUR] [USD] [*specify*]
Comparison Base Rate Screen Page: [*specify*]
Comparison Base Rate Multiplier: [1][*specify*]
Comparison Base Rate Spread: [0][*specify*]
[**Minimum Rate:** ●%]
[**Maximum Rate:** ●%]
Participation: ●%
[**Spread:** [●]% per annum][Not Applicable]
Interest Payment Dates: [*specify*]
Day Count Fraction: [[1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

Range Accrual Provisions: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Interest Rates — Indexed Notes — Range Accrual Notes"
Interest Rate: A rate of ●% per annum subject to the Range Accrual Provisions]

Underlyers	Accrual Range	Underlyer Daily Fixings
[*insert Base Rate*] [[*ccy1*][ccy2] FX Fixing] [*specify*]	[[Equal to or] greater than ●] [or][and] [[Equal to or] less than ●]	[*specify*]
[*repeat as required*]	[*repeat as required*]	[*repeat as required*]

[*For each Underlyer that is a Base Rate:*

Base Rate Underlyers	Maturity	Currency	Screen Page
[*insert Base Rate*]	[*specify*]	[*specify*]	[*specify*]
[*repeat as required*]	[*repeat as required*]	[*repeat as required*]	[*repeat as required*]

[*For each Underlyer that is a Foreign Currency Exchange Rate:*

Exchange Rate Underlyers	Bid/Ask/Mid	Fixing Page	Fixing Time
[[*ccy1*][*ccy2*] FX Fixing	[—] [bid] [ask] [mid]	[*specify*]	[*specify*]
[*repeat as required*]	[*repeat as required*]	[*repeat as required*]	[*repeat as required*]

Asian Performance: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Interest Rates — Indexed Notes — Asian Performance Notes"
Absolute: [Applicable][Not applicable]
Interest Rate Table:

Interest Period Number	Interest Payment Date	Observation Dates
1	[*insert date*]	[*insert Valuation Date*] [*insert Averaging Dates*] [*insert Final Observation Dates*]
2 [*repeat as required*]	[*insert date*]	[*repeat as required*]

[**Minimum Rate:** ●%]
[**Maximum Rate:** ●%]
[**Spread:** ●%]
Participation Rate: [[100%] / [●]%]
Underlyer Information Table:

Underlyer	Underlyer Sponsor Underlyer Currency	Underlyer Valuation Time	Reference Price (Initial)	Weighting
[●]	[●] [●]	[●]	[[●] / [Initial Reference Price / Initial Average Price / Initial Highest Price / Initial Lowest Price]	[●]%
[*repeat*]	[*repeat*]	[*repeat*]	[*repeat*]	[*repeat*]

Averaging: [Applicable/Not Applicable].
[*If Averaging is "Applicable",*
Initial Averaging Dates: [*insert dates*].
Averaging Postponement: [Postponement][Modified Postponement]
Initial Observation Period: [Applicable/Not Applicable]
[*If Initial Observation Period is "Applicable",*
Initial Observation Dates: [*insert dates*].
[*If Averaging and Initial Observation Period are "Not Applicable",* **Initial Valuation Date**: [*insert date*].
Final Observation Period: [Applicable/Not Applicable]
[*If Final Observation Period is "Applicable",*
Final Observation Dates: [*insert dates*].
Observation Level: [Lowest][Highest].
Common Exchange Business Day: [Applicable][Not applicable]
Day Count Fraction: [1/1 (ISDA)] [*specify*]

Digital: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Interest Rates — Indexed Notes —Digital Notes"
Lock-In: [Applicable][Not applicable]
Interest Protection: [Applicable][Not applicable]
Worst-Of: [Applicable][Not applicable]
Best-Of: [Applicable][Not applicable]
Multiple Conditions: [Applicable][Not applicable]
Floating Coupon: [Applicable][Not Applicable]
Interest Rate Table:

Interest Period Number	Interest Payment Date	Observation Dates	Applicable Coupon
[●]	[*insert date*]	[*insert Valuation Date*] [*insert Averaging Dates*] [*insert Final Observation Dates*]	[[●]%]/ [A rate per annum equal to the Base Rate [*plus* the Spread][subject to the] [Minimum Rate][and][the Maximum Rate] [**Minimum Rate:** ●%] [**Maximum Rate:** ●%] **Base Rate:** [●] [**Spread:** [●]% per annum][Not Applicable] **Underlyer Maturity:** [Three month] [Six month] [1 year] [*specify*] **Underlyer Currency:** [EUR] [USD] [*specify*] **Underlyer Screen Page:** [●] **Interest Determination Date:**[*specify*]]
[repeat as required]	*[insert date] [repeat as required]*	*[repeat as required]*	*[repeat as required]*

Index Information Table:

Index	Index Sponsor Index Currency	Index Valuation Time	Reference Price (Initial)	Performance Measure	Barrier Level
[●]	[●] [●]	[●]	[[●] / [Initial Reference Price /	In respect of [each] Interest Period [Number	In respect of [each] Interest

			Initial Average Price / Initial Highest Price / Initial Lowest Price]	[●]], [Equal to or] [Greater] [Less] Than; [*repeat as required*]	Period [Number [●]], [●]% [*repeat as required*]
[*repeat*]	[*repeat*]	[*repeat*]	[*repeat*]	[*repeat*]	[*repeat*]

Averaging: [Applicable/Not Applicable].
[*If Averaging is "Applicable",*
Initial Averaging Dates: [*insert dates*].
Averaging Postponement: [Postponement][Modified Postponement]
[*If Averaging is "Not Applicable",* **Initial Valuation Date:** [*insert date*].
Initial Observation Period: [Applicable/Not Applicable]
[*If Initial Observation Period is "Applicable",*
Initial Observation Dates: [*insert dates*].
[*If Averaging and Initial Observation Period are "Not Applicable",* **Initial Valuation Date:** [*insert date*].
Final Observation Period: [Applicable/Not Applicable]
[*If Final Observation Period is "Applicable",*
Final Observation Dates: [*insert dates*].
Observation Level: [Lowest][Highest].
Common Market Disruption Events: [Applicable][Not applicable]
Day Count Fraction: [1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

OutPerformance: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]
See "General Note Conditions — Interest Rates — Indexed Notes — OutPerformance Notes"
Performance Factor: [+][-][●]%
Interest Rate Table:

Interest Payment Date	Observation Dates	Applicable Coupon
[*insert date*]	[*insert Valuation Date*] [*insert Averaging Dates*] [*insert Final Observation Dates*]	[[●]%]/ [A rate per annum equal to the Base Rate [*plus* the Spread][subject to the] [Minimum Rate][and][the Maximum Rate] [**Minimum Rate:** ●%] [**Maximum Rate:** ●%] **Base Rate:** [●] [**Spread:** [●]% per annum][Not Applicable] **Underlyer Maturity:** [Three month] [Six month] [1 year] [*specify*]

		Underlyer Currency: [EUR] [USD] [*specify*] **Underlyer Screen Page:** [●] **Interest Determination Date:**[*specify*]]
[*insert date*] [*repeat as required*]	[*repeat as required*]	[*repeat as required*]

Index Information Table:

Index	Index Sponsor Index Currency	Index Valuation Time	Reference Price (Initial)
Primary Index: [●]	[●] [●]	[●]	[[●] / [Initial Reference Price / Initial Average Price / Initial Highest Price / Initial Lowest Price]
Secondary Index: [●]	[●] [●]	[●]	[[●] / [Initial Reference Price / Initial Average Price / Initial Highest Price / Initial Lowest Price]

Averaging: [Applicable/Not Applicable].
[*If Averaging is "Applicable",*
Initial Averaging Dates: [*insert dates*].
Averaging Postponement: [Postponement][Modified Postponement]
[*If Averaging is "Not Applicable",* **Initial Valuation Date**: [*insert date*].
Initial Observation Period: [Applicable/Not Applicable]
[*If Initial Observation Period is "Applicable",*
Initial Observation Dates: [*insert dates*].
[*If Averaging and Initial Observation Period are "Not Applicable",* **Initial Valuation Date**: [*insert date*].
Final Observation Period: [Applicable/Not Applicable]
[*If Final Observation Period is "Applicable",*
Final Observation Dates: [*insert dates*].
Observation Level: [Lowest][Highest].
Common Exchange Business Day: [Applicable][Not applicable]
Day Count Fraction: [1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

UDI-Linked: [Applicable][Not applicable] [*If Not applicable, delete the rest of this row:*]

See "General Note Conditions — Interest Rates — UDI-Linked Notes"

Interest Amount: As determined by the Calculation Agent on the applicable Interest Determination Date, an amount equal to the *product* of (i) the Interest Rate *times* (ii) the UDI-Linked Notional Amount *times* (iii) the UDI Index Level for the relevant Interest Determination Date

Interest Rate Table:

Interest Payment Date	Interest Determination Dates	Interest Rate
[*insert date*]	[[*insert date*] [●] Business Days prior	[•]%

	to the Interest Payment Date	
[*insert date*] [*repeat as required*]	[[*insert date*] [●] Business Days prior to the Interest Payment Date [*repeat as required*]	[•]% [*repeat as required*]

Day Count Fraction: 1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]

Maximum Days of Postponement: [[8][●][Business Days]]

Non-Scheduled Early Repayment Amount

[Par Plus Accrued][Accreted Value][Fair Market Value][UDI-Linked Par Plus Accrued][UDI-Linked Accreted Value] [UDI-Linked Amount] [*insert following provision where Non-Scheduled Early Repayment Amount is specified as either "UDI-Linked Par Plus Accrued", "UDI-Linked Accreted Value" or "UDI-Linked Amount" and "UDI-Linked Floor" is specified as"100% of the Face Amount"*][, subject to the UDI-Linked Floor]

Interest Commencement Date

For notes that bear interest, the interest commencement date]
[*For notes that do not bear interest:* Not Applicable]

Interest Payment Dates

For notes that bear interest: [●[●, and ●] of each year][every ● days][on the ● day following the previous originally scheduled Interest Payment Date (or the Interest Commencement Date with respect to the first Interest Payment Date)][, beginning with ● and up to and including ●]
[*For notes that do not bear interest:* Not Applicable]

Interest Period

For notes that bear interest a period from and including an [originally scheduled] Interest Payment Date (or the Interest Commencement Date, in the case of the initial Interest Period) to but excluding the next succeeding [originally scheduled] Interest Payment Date (or the [originally scheduled] Stated Maturity Date, in the case of the final Interest Period)
[*For notes that do not bear interest:* Not Applicable]

Calculation Basis

[Per Denomination] [Notional]

Regular Record Dates

[●] [*For Global registered notes issued under NSS:* 1] [*For non-Global notes:* 15] Business Day(s)

Additional Redemption Rights at the Option of the Issuer

[Not Applicable] [Applicable]
[*If Not Applicable, delete the remainder of this row.*] [

Your note will be redeemable at the Issuer's option on the Issuer's Redemption Dates specified in the table below at the corresponding Issuer's Redemption Amount:

Issuer's Redemption Date(s)	Issuer's Redemption Amount
[*insert [date]/[date range]*]	[[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Issuer's Redemption Date]/ [Make-Whole Redemption Amount]
[*insert [date]/[date range]*] [*repeat as required*]	[[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Issuer's Redemption Date]/ [Make-Whole Redemption Amount] [*repeat as required*]

Issuer's Redemption Notice Period: [*insert [*[●] [Business Days]]/[●] [days]] *which shall in no case be fewer than five (5) Business Days*]

[*If Make Whole Redemption Amount is not specified as the Issuer's Redemption Amount for any Issuer's Redemption Date(s), delete the remainder of this row.*]

Redemption Margin: [●]
Reference Bond: [●]
Quotation Time: [●]
Quotation Jurisdiction: [●]
Par Call Redemption Date: [Not Applicable] [*Specify*]
Make-Whole Day Count Fraction: [1/1 (ISDA)] [Actual/Actual (ISDA)] [Actual/Actual (ICMA)] [Actual/Actual (Bond)] [Actual/Actual (Euro)] [Actual/365 (Fixed)] [Actual/360 (ISDA)] [Actual/360 (ICMA)] [30/360 (ISDA)]
Make-Whole Calculation Basis: The Make-Whole Redemption Amount shall be calculated by discounting to the applicable Issuer's Redemption Date on [a/an][annual][semi-annual][quarterly][other] basis]

Repurchase at the Holder's Option

[Not Applicable] [Applicable]
[*If Not Applicable, delete the remainder of this row.*] [

Your note will be repayable at the Holder's option on the Holder's Redemption Dates specified in the table below at the corresponding Holder's Redemption Amount:

Holder's Redemption Date(s)	Holder's Redemption Amount
[*insert [date]/[date range]*]	[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Holder's Redemption Date
[[*insert [date]/[date range]*] [*repeat as required*]	[●] per cent. of the Face Amount *plus* accrued but unpaid interest to the applicable Holder's Redemption Date] [*repeat as required*]

]

Redemption upon Change in Law

[Not Applicable] [Applicable]

Gross-up and Call in the Case of Tax Law Changes

[Not Applicable] [Applicable]

Non-Default Business Day

[Applicable][Not Applicable]

Additional Business Centre:

[None][*Specify*]

Business Day Convention

[Modified] Following [[Adjusted] [Unadjusted]]

Final BDC Procedure

[Not Applicable] [Applicable]

Intended to be held in a manner which would allow Eurosystem eligibility

[Yes. Note that the designation "yes" simply means that the Notes are intended upon issue to be deposited with one of the ICSDs as common safekeeper[, and registered in the name of a nominee of one of the ICSDs acting as common safekeeper] [*include this text for Registered Notes which are to be held under the NSS*] and does not necessarily mean that the Notes will be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem either upon issue or at any or all times during their life. Such recognition will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.]

/[No. Whilst the designation is specified as "no" at the date of these Final Terms, should the Eurosystem eligibility criteria be amended in the future such that the Notes are capable of meeting them the Notes may then be deposited with one of the ICSDs as common safekeeper [, and registered in the name of a nominee of one of the ICSDs acting as common safekeeper] [*include this text for Registered Notes*]. Note that this does not necessarily mean that the Notes will then be recognised as eligible collateral for Eurosystem monetary policy and intra day credit operations by the Eurosystem at any time during their life. Such recognition

	will depend upon the ECB being satisfied that Eurosystem eligibility criteria have been met.]
Form of Notes	Registered global notes only, registered in the name of a nominee of a common depositary or safekeeper for [Euroclear and Clearstream, Luxembourg] [*or specify clearing system*]
Any Clearing System(s) other than Euroclear Bank S.A./N.V. and Clearstream Banking, société anonyme and the relevant identification number(s):	[*specify other, give name(s), address(es) and number(s))*] [Not Applicable]
Calculation Agent	[Goldman Sachs International] [*specify*]
Listing and Admission to Trading	[*For notes listed on the regulated market:* Application [has been][will be] made to the Luxembourg Stock Exchange for the notes to be admitted to trading on the Luxembourg Stock Exchange's regulated market and to be listed on the Official List of the Luxembourg Stock Exchange [with effect from [•]; see "Listing and General Information" in the Base Prospectus] [*Specify other listings*] [*When notes are to be fungible with an existing issue, indicate if original notes are already admitted to trading on the Luxembourg Stock Exchange*] [*For all other notes:* Not applicable: no application has been made or will be made to list the notes for trading on a regulated market] [*If the Notes have a denomination of at least EUR 100,000*: Estimate of total expenses related to admission to trading: [●]]
Credit Ratings	The Notes to be issued [have not been rated]/[[have been/are expected to be] rated]/[The following ratings reflect ratings assigned to notes of this type issued under the Program generally]]: [Dominion Bond Rating Service Limited: [ ]] [Fitch, Inc.: [ ]] [Moody's Investors Service: [ ]] [Standard & Poor's: [ ]] [Rating and Investment Information, Inc.]: [ ]] [Other]: [ ]]] (*Need to include a brief explanation of the meaning of the ratings if this has previously been published by the rating provider*.) (*The above disclosure should reflect the rating allocated to Notes of the type being issued under the Program generally or, where the issue has been specifically rated, that rating*)
Interests of Natural and Legal Persons Involved in the Issue/Offer	Save for any fees payable to the [Managers]/[Dealers], so far as the Issuer is aware, no person involved in the offer of the Notes has an interest material to the offer. The [Managers]/[Dealers] and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform other services for, the Issuer and its affiliates in the ordinary course of business
Section 871(m)	[The Issuer has determined that the notes will not be subject to withholding under Section 871(m) of the U.S. Internal Revenue Code] [*Other*]
[Cut-off Date	Applicable - [●] Business Days] [Not Applicable]
[Postponement Following FX Disruption Event and Payments in USD	[Not Applicable] [Applicable] [*If applicable, number of business days (if other than 15) in the definition of* ***FX Disruption Event Cut-Off Date***]]

_____

Final Terms, dated ●

INFORMATION ABOUT THE UNDERLYER[S]

[*where the underlying is an index, the name of the index, including an indication of where the past and potential future performance and volatility of the underlying can be obtained.*]

[*an indication where information about the past and potential future performance and volatility of the underlying can be obtained by electronic means and whether or not it can be obtained free of charge*]

[*where the underlying is an interest rate, a description of the interest rate.*]

[*where the underlying is a basket of underlying, the relevant weightings of each underlying in the basket*]

[**INDEX DISCLAIMER**] [*Insert only if applicable*]

BENCHMARK REGULATION

[*Include if applicable*: [*specify benchmark*] is provided by [*administrator legal name*] [*repeat as necessary]*. [As at the date of these Final Terms, [*administrator legal name*] [appears]/[does not appear] [*repeat as necessary*] in the register of administrators and benchmarks established and maintained by ESMA pursuant to Article 36 of the Benchmark Regulation.] [Not Applicable].

[TERMS AND CONDITIONS OF THE OFFER]

[*(If the Notes have a denomination of at least EUR 100,000 to which Annex 15 of the Prospectus Regulation Implementing Regulation applies, then this section should be deleted.)*]

[**Offer Period**: An offer of the Notes may be made by the agents other than pursuant to Article 1(4) of the Prospectus Regulation in the Public Offer Jurisdictions during the period commencing on (and including) [●] and ending on (and including) [●].

Offer Price: [[●]% of the Original Issue Price] [*specify*].

Conditions to which the offer is subject: [The offer of the Notes for sale to the public in the Public Offer Jurisdiction(s) are subject to the relevant regulatory approvals having been granted, and the Notes being issued.] [*specify*]

Description of the application process: [Not Applicable/*give details*].

Description of possibility to reduce subscriptions and manner for refunding excess amount paid by applicants: [Not Applicable/*give details*].

Details of the minimum and/or maximum amount of application: [Not Applicable][The maximum number of Notes to be issued is [●]].

Details of the method and time limits for paying up and delivering the Notes: [The Notes will be issued on the Issue Date against payment to the Issuer of the net subscription moneys.] [*specify*]

Manner in and date on which results of the offer are to be made public: The results of the offering will be available on the following website [●] on or around the end of the Offer Period.

Procedure for exercise of any right of preemption, negotiability of subscription rights and treatment of subscription rights not exercised: [Not Applicable/*give details*].

Whether tranche(s) have been reserved for certain countries: [●] [Not Applicable].

Process for notification to applicants of the amount allotted and the indication whether dealing may begin before notification is made: [Not Applicable/*give details*].

Amount of any expenses and taxes specifically charged to the subscriber or purchaser: [Not Applicable/*give details*].

Name(s) and address(es), to the extent known to the Issuer, of the placers in the various countries where the offer takes place: [None/give details].

Name(s) and address(es) of any paying agents and depository agents in each country: [None/*give details*]

Consent to use the Base Prospectus

Identity of financial intermediary(ies) that are allowed to use the Base Prospectus: [insert name and address of any financial intermediary which has consent to use the Base Prospectus]

Offer period during which subsequent resale or final placement of Notes by financial intermediaries can be made: [*specify*]

Conditions attached to the consent: [*insert any clear and objective conditions attached to the consent to use the Base Prospectus*]]

DISTRIBUTION

Method of distribution:	[Syndicated / Non-syndicated]
[Include if syndicated — Names and addresses of Purchasing Agents and underwriting commitments:	[Give names, addresses and underwriting commitments]] (Include names and addresses of entities agreeing to underwrite the issue on a firm commitment basis and names and addresses of the entities agreeing to place the issue without a firm commitment or on a "best efforts" basis if such entities are not the same as the Purchasing Agents.)
[Include if syndicated — Date of Terms Agreement:	[insert date]]
[Include if non-syndicated — Name and address of Dealer:	[give name and address]]
[Use and estimated net amount of the proceeds	[●]]

[*If the Notes have a denomination of at least EUR 100,000 to which Annex 15 of the Prospectus Regulation Implementing Regulation applies, then the following section should be deleted:*

Non-exempt Offer:	[Not Applicable] [An offer of the Notes may be made by the Managers [and [specify, if applicable]] other than pursuant to Article 1(4) of the Prospectus Regulation in [Austria / Belgium / Bulgaria / Croatia / the Czech Republic / Denmark / Finland / France / Germany / Hungary / Ireland / Italy / Luxembourg / The Netherlands / Norway / Poland / Portugal / Romania / Slovakia / Spain / and Sweden] ("Public Offer Jurisdictions") during the period from [specify date] until [specify date] ("Offer Period"). See further paragraph entitled "Terms and Conditions of the Offer" above.]
Reasons for the offer	[specify] [Not applicable]
Estimated net proceeds:	[●][If proceeds are intended for more than one use will need to split out and present in order of priority. If proceeds insufficient to fund all proposed uses state amount and sources of other funding.]
Estimated total expenses:	[●][Include breakdown of expenses]
Name(s) and address(es) of any paying agents and depository agents in each country:	[None/give details]]
Prohibition of Sales to EEA Retail Investors	[Not Applicable] [Applicable]
Prohibition of Sales to UK Retail Investors	[Not Applicable] [Applicable]

Public Offers in Switzerland:

Prohibition of Offer to Private Clients in Switzerland:	[Applicable] / [Not Applicable].
Swiss withdrawal right pursuant to article 63 para 5 FinSO:	[Applicable: If an obligation to prepare a supplement to the Base Prospectus pursuant to article 56 para 5 of the Financial Services Act (FinSA) is triggered during the subscription period, subscriptions may be withdrawn within two days of publication of the supplement.] [Not applicable]. (Specify as applicable in case of a Swiss public offer where a withdrawal right pursuant to article 63 para 5 of the Financial Services Ordinance (FinSO) is granted).

[Consent to use the Base Prospectus In Switzerland

Identity of financial intermediary(ies) that are allowed to use the Base Prospectus for public offerings in Switzerland:	[insert name and address of any financial intermediary which has consent to use the Base Prospectus] [The Issuer consents to the use of the Base Prospectus by the financial intermediary(ies) with whom the Issuer has a contractual relationship in respect of the offer of the Notes.]
Offer period during which subsequent resale or final placement of Notes by financial intermediaries can be made:	[specify] [Offer Period]]

ISSUE-SPECIFIC SUMMARY OF THE SECURITIES

[Insert issue-specific summary if applicable]

Goldman
Sachs

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