全球債券基金評等準則

主要準則

此報告取代之前於2016年8月22日發行的全球債券評等準則

範圍

本準則適用於債務與債類證券投資組合，其中包括短期與長期債券基金、貸款基金、地方政府投資組合 (LGIPs)、債券指數型基金及私人管理的投資組合。這類投資組合可包含各種短期與長期債務及債類工具，例如商業本票、存單、債券、貸款、優先證券、反向買回協議、主權債務、結構性融資證券及信用違約交換 (CDS)。

債券基金評等的授予對象為資產組合，而非單一證券。此一評等概不授予封閉式基金或投資信託發行的債務，惠譽為其另訂準則，請見封閉式基金與市值結構之評等。即便如此，全球債券基金評等準則可用於封閉式基金及投資信託投資組合本身的評等。

評等之主要驅動因素

資產層級評等因素：資產組合的 WARF 來自惠譽為每項資產及／或交易對手設定的信用風險因素，這類因素係以公開評等、信用意見或其他可比較違約風險衡量方式以及到期日作為根據。

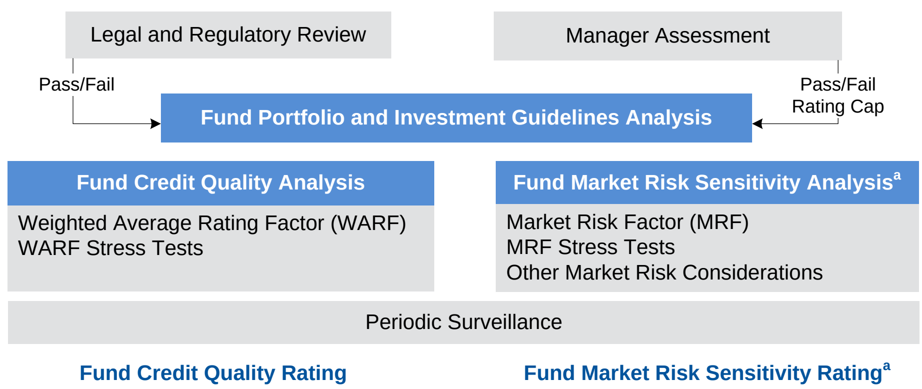
資產經理人評估：惠譽檢視投資組合經理人的能力，據以評估經理人是否適格、適任且能管理投資組合。凡是未能通過評估的經理人，惠譽不會對其管理的投資組合進行評等。

法律及法規覆核：投資組合必須通過法律及法規篩選過程，包括投資組合資產的法律隔離與保障。

市場風險敏感度：在特定情況下，惠譽亦可授予輔助性的基金市場風險敏感度評等，以針對投資組合對利率風險、利差風險、匯率波動、槓桿等市場風險因素的敏感度表示意見，端視市場相關性或法規要求而定。

主動評等監控：惠譽要求提供每月的投資組合與相關績效統計資料，以監控各項評等。

Global Bond Fund Rating Criteria – Simplified Diagram



[a] Subject to market relevance or regulatory demand
Source: Fitch Ratings

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本報告包含中文摘譯與英文全文，譯文若與英文有出入，請以英文為準。
This report contains of summary Chinese translation and English full report. In the event of any dispute / misinterpretation, the English version shall prevail.

全球債券基金評等準則架構

惠譽全球債券基金評等準則的用途，在於授予投資組合的基金信用風險評等。這類評等係以傳統「AAA」等級表示，並在末尾加上「f」，有別於證券及發行人的傳統信用評等。為了配合特定市場的市場需求及／或法規要求，該準則亦可用於授予基金市場風險敏感度評等。基金信用風險與基金市場風險敏感度評等可單獨或一併授予，以反映基金投資人面臨的信用和市場風險。

為了符合國際債券基金評等的資格，基金或投資組合的多元化程度須達下限，債務人須達五人以上，而且該準則定義中債務人的集中度並未過高 (>30%)，除非有其他減輕風險的相關因素。這類因素可能包括未納入多元化程度考量範圍的高品質主權、超國家與機構發行人重大曝險。

債務人曝險可能為「現金」或透過各種參照證券組合或指數的衍生性工具建構的合成部位。例如，針對從事總收益互換 (TRS) 交易的投資組合或基金，惠譽可分析交易對手與 TRS 合約所列固定收益證券組合的信用風險，據以授予債券基金評等。本報告結尾處說明了*惠譽全球債券基金評等準則*的限制。

惠譽針對特定市場授予國內評等，因為評等尺度係由當地監管部門決定。如欲深入瞭解惠譽配合國內評等調整準則的方式，請見附*錄 A：國內債券基金評等*。

- 基金信用風險評等：針對固定收益基金或投資組合整體信用狀況及易受違約損失的程度提出意見。這類評等係以投資組合部位的實際與潛在信用風險平均值作為根據。基金信用風險評等包含評等動能因素，從而因應投資組合長期維持特定信用風險的可能性。
- 基金市場風險敏感度評等：針對投資組合總收益及／或淨資產價值對信用利差、利率及其他特定市場風險參數變化的相對敏感度提出意見，並適時考量槓桿的影響。基金市場風險敏感度評等並未預測市場狀況變化的方向和幅度，因此並未預測特定基金或投資組合未來表現的好壞或好壞程度。基金市場風險敏感度評等並未衡量投資組合對極端風險的敏感度，這類風險可能源自次級市場流動性在特定時期內降低的情況。

受到積極管理的投資組合通常遵循一套投資指導原則。若投資原則有別於現有投資組合，本機構將考量相關評等是否應較為保守，以反映相關投資組合的可能變動。例如，惠譽可針對新上市的投資組合授予評等。在此情況下，初始投資組合可能無法完全由長期或目標投資組合代表其狀況。因此，在已滿足法律和監管覆核及對經理人之評估下，惠譽之評等可基於該投資組合事先議定之投資原則保守分析。此種情況下，本機構可對該分析額外調整，使其更能反映可能影響投資組合之潛在風險。

惠譽可設定基金信用風險評等及／或基金市場風險敏感度評等的定性上限，或針對惠譽認為過度運用槓桿的投資組合選擇不進行評等。具體而言，若投資組合的市場風險因素 (請見：基金市場風險敏感度評等準則) 已因槓桿操作而遠超出惠譽所訂的上限區間，惠譽可能拒絕賦予該基金評等。例如，若槓桿操作導致某個 5 年期「BBB」證券組合的市場風險因素達到 30 (沒有槓桿時的數值應為 5 左右)，惠譽或將認定槓桿過高而拒絕對該基金進行評等。

法律及法規覆核

基金與投資組合委任案的法律架構並不一致。惠譽將檢視投資組合或基金的法律環境，因為這與基金資產的法律隔離及估值有關。覆核作業將考量資產所有權認定方面的潛在難題，尤其是資產是否適度隔離並獲得保障，因而得以及時歸還。針對投資組合或基金資產的隔離與保障，惠譽若發現重大弱點，則不授予評等。

投資經理人之評估

惠譽針對積極管理型投資組合的投資經理人進行評估。本機構希望確認該經理人適格、適任且能管理投資組合。若無法確認這些條件，惠譽即不對該基金進行評等。經理人評估流程結束後，就能針對諸多投資組合進行評等。評估重點包括：

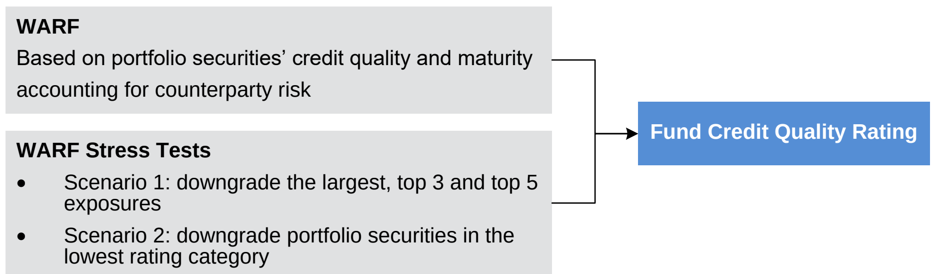
- 投資經理人的營運與財務穩定度、人員編制、技術資源、控制與治理。
- 管理被評資產類別的經驗。
- 針對主動管理型投資組合，惠譽也會考量重要投資人員的經驗。針對新上市基金或新的投資經理人，惠譽則會觀察此類人員管理類似投資組合或策略的經驗。

基金信用風險評等準則

基金信用風險評等係以投資組合部位的實際與潛在信用風險加權平均值作為根據。基金信用風險評等並非即時評等，因此已包含評等動能因素，以因應投資組合長期維持特定信用風險的可能性。

基金信用風險評等主要取決於投資組合的 WARF，並已考量負面評等觀察名單中的證券、準則中特定壓力測試的結果以及其他風險考量，例如交易對手風險、集中度與衍生性工具。

Fund Credit Quality Rating – Simplified Diagram



Source: Fitch Ratings

基金信用風險評等主要取決於投資組合的 WARF，並考慮納入負面評等觀察名單上的證券、本準則所定義的特定壓力測試以及其他信用因素，例如交易對手風險、集中度與衍生性金融性商品。此外，新基金的開放申購期間及定期債券基金終止後的緩衝期間，均為評等考量因素 (請見附錄 D 以瞭解更多細節)。

加權平均評等因素

惠譽視投資組合的WARF為基金信用風險評等的主要驅動因素。基金信用風險評等主要由WARF對應的評等主導，如本節末的表格中所述。在大多數情況下，投資組合的WARF是每種投資組合證券的信用評等因素的市場價值加權總和，證券的信用評等因素會考慮到證券的到期日，這裡的到期日在絕大部分情況下指的是法定最終到期日。逐案的例外情況包括結構性金融證券，惠譽可能會選擇看重加權平均壽命。對於含有由投資者選擇的認沽期權的證券，惠譽會考慮認沽期權日期。

針對附發行機構買權的永續型金融工具，惠譽將依個案逐一認定其到期日。針對不附買權或賣權的永續型金融工具，惠譽將適用標準 30 年到期日。

惠譽評等因素請見下方表格。評等因素由 10 年累積違約頻率推導產生，其與惠譽投資組合信用風險模型採用方法相符。這些因素可能會定期更新。

採用的評等因素或用以決定妥適評等因素的方法，在某些國內市場可能有所不同，以反映出*附錄 A* 中詳細描述的具體市場特性。投資組合的 WARF 計算則是以投資組合內的相關資產市場價值 (CDS 或其他可比較衍生性工具的名目價值) 為基礎。因此，個別證券對於整體投資組合 WARF 的貢獻，將隨該證券的市場價值而有不同。

當計算本機構的 WARF 時，不考量空頭部位。針對透過衍生性工具 (例如具有一致的名目價值與

期限) 而完全對沖信用風險的持有部位，惠譽使用衍生性工具部位的市場價值，以及衍生性工具交易對手信用風險 (若此交易對手經授予評等)，以計算該部位的 WARF。*附錄 B* 包含計算 WARF 的範例。

基金信用風險評等 – 信用風險因素

以標的證券評等類別及到期日剩餘期限劃分

到期日剩餘期限	AAA	AA	A	BBB	BB	B	CCC	CC/C
0 – 90 天	0.00	0.01	0.2	0.6	5.0	20.0	40	100.0
91 – 397 天	0.01	0.1	0.3	1.0	7.0	28.0	62.8	100.0
398 天 – 3 年	0.1	0.2	1.0	2.0	10.0	32.2	62.8	100.0
> 3 年	0.2	0.6	1.6	4.5	17.4	32.2	62.8	100.0

來源：惠譽評等

WARF 是以評等類別(例如「BBB」) 而非評等分類中的細分級別 (例如「BBB+」) 進行計算，這會使評等類型對應的WARF 涵蓋範圍較廣，並在提升評等穩定性時，允許正常投資組合的調整。WARF 代表投資組合的平均信用風險，有助於比較不同投資組合本身的信用風險。

當計算 WARF 時，惠譽會將所有列入負面評等觀察名單的證券 (或列入其他具有相似名稱定義的評等)的評等調低一級，其 WARF 均會較授予。這項作法只會影響因此落入另一評等類別的評等 (例如「AA-」可能落入「A」類別)。針對列入正面評等觀察名單的證券，或屬於評等展望的證券 (無論其結果為正面或負面)，則未進行類似的調整。針對僅具有短期評等的證券，惠譽使用評等因素轉換表，詳見本頁左側空白處表格。

針對高度集中的基金或交易對手較數量少的衍生性工具為基礎的基金，由於，惠譽得將該基金評等等同與獲得最低評等的債務人或交易對手的信用風險。具體而言，若基金的債務人曝險超過五人以上但少於 10 人，除與高品質主權、超國家與機構發行人，或任一債務人占總投資組合超過 30% 等情形相關外，惠譽會將基金信用風險評等等同於與獲得最低評等的債務人或交易對手的信用風險。

惠譽在其分析中使用發行證券的評等，考量該債券是否是次級債是否有超額抵押。惠譽首先使用自己的評等。 如果惠譽無法取得時，惠譽会采用其他經全球公認信評機構授予評等中最低者。當基金投資在各種不同部位 (例如 CDS 指數、基金或 ETF)，惠譽在計算 WARF 時使用該指數的加權平均評等。針對單一名稱信用違約交換，惠譽則考量參考實體的評等。

針對未經全球公認信評機構公開授予評等的資產，惠譽在計算 WARF 時，會將該資產評等認定為「CCC」。此方法有兩項例外：第一，惠譽在內部要求相關分析團隊提供信用意見或非公開評等。第二，在少數情況下，如果惠譽評等委員會判斷相長人的信用評估與惠譽自身內部信用評估結果相近,惠譽可能考量採用該基金經理人自行所為的信用評估，。但此方法的適用仍須視個案逐一認定，且本機構預期以此方式獲得評等的證券，其總和低於投資組合的 10%。

Calculating WARF

Factors applied to securities with only short-term ratings

ST Rating	Factor
F1+	AA
F1	A
F2	BBB
F3	BBB

Source: Fitch Ratings

WARF 範圍準則

WARF 範圍 (>=, <)	WARF-隱含基金信用風險評等
0.00 - 0.3	AAA
0.3 – 1.0	AA
1.0 – 2.6	A
2.6 – 8.8	BBB
8.8 – 22.3	BB
22.3 – 42.4	B
42.4 – 100	CCC 以下

來源：惠譽評等

交易對手風險

投資組合可能會暴露在各種來源的交易對手風險之下，包括附買回交易、交換協議或現金存款。在惠譽評等基金中符合資格的曝險，不包括未要求經常性保障金填補及適當規模抵押擔保的非現金型交易對手曝險。若基金為放款人的附買回交易，惠譽通常會以交易對手信用風險 (即評等) 與附買回合約期限，作為 WARF 及 MRF 的計算基礎[1]。

然而，若交易對手未經評等，或經認定其信用風險具有高度投機性，惠譽在計算 WARF 及 MRF 時，可能考量抵押品品質及到期日。此外，當附買回合約受到高品質流動性抵押品 (即高評等政府證券) 的充分支撐；當抵押品成分實質可見並預期維持穩定，且在規範附買回合約的法律制度下，幾乎不可能發生交易對手破產所生凍結附買回抵押品的風險 (如標準已開發市場公約定義，例如 ISDA U.S. Stay Protocol)，惠譽可能會依據標的抵押品的信用風險及附買回合約的到期日計算其 WARF 及 MRF。

針對非固定收益抵押品，WARF 及 MRF 適用「CCC」評等因素及 30 年期間計算。

附買回交易未附抵押品或抵押品暴露在破產凍結的風險之下，惠譽將視該附買回交易為附買回交易交易對手風險下的直接無擔保信用加以處理。

現金

基金可能在不同時點具有不同規模的現金餘額，而分別以銀行存款或投資貨幣市場工具等方式持有。惠譽對於此類曝險的處理方式，與其評等分析中的其他曝險相同。例如，惠譽針對受評為「AA」的銀行 60 天期存款，將會使用數值為 0.01 的評等因素。

部分基金可能會將未投資現金放在基金的保管銀行。針對此類情形，惠譽在計算其投資組合 WARF 時，採用與銀行信用風險相對應的評等因素。如果未投資現金與基金保管銀行的其他資產在法律上和運營中都充分隔離(如依 UCITS V 法令規定)。在這些情形下，WARF 計算適用數值為 0 的評等因素。

WARF 壓力測試

- 惠譽對 WARF 採用特定壓力測試，以估計最終評等對於特定曝險評等調降變動的敏感度。惠譽適用下列壓力測試：針對最大曝險、前三大曝險及前五大曝險，均調降一級信用評等，並重新計算 WARF。這些情境評估潛在投資組合的集中度風險，其可能導致更高的尾端信用風險及易受損失的程度。
- 所有低於 (非壓力測試下) WARF 相對應的基金評等水準兩個以下評等類別的投資組合證券，均向下調降一級，並重新計算 WARF。此情境可掌握潛在「槓鈴式」信用風險的影響。

當授予最終基金信用風險評等時，評等委員會分析WARF 對於壓力測試的敏感度。針對對於壓力測試反應特別敏感的基金，惠譽可能會授予其較低的評等，包括透過評等調整功能的適用 (「+」及「−」)，以反映評等類別內的基金相對風險。

基金市場風險敏感度評等準則

惠譽可在特定情況下授予基金市場風險敏感度評等，端視市場相關性、法規要求及基金信用風險評等而定。基金市場風險敏感度評等的主要根據為基金投資組合利率存續期間interest rate duration (修改後存續期間modified duration) 與利差持續期間(spread duration)的分析結果，並針對槓桿影響 (依照下列惠譽市場風險因素加以衡量，如適用) 進行調整。基金市場風險敏感度評等的尺度為「S1」(市場風險敏感度非常低) 至「S6」(市場風險敏感度非常高)。

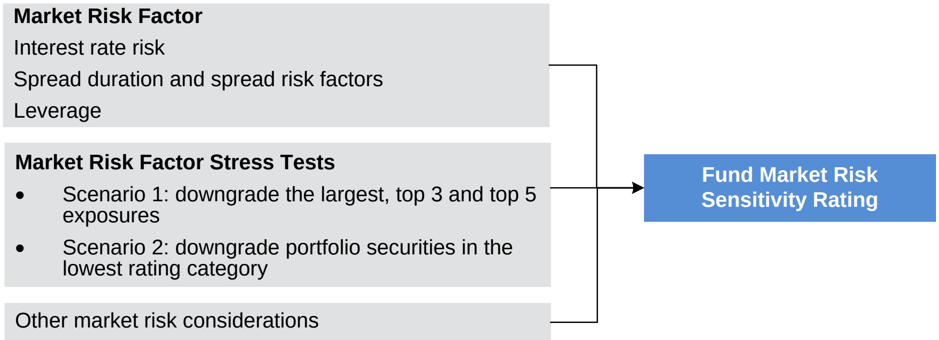
[1]若附買回交易的交易對手尚無評等，但其為獲評等金融機構的子公司，除本機構認定未受評等子公司的信用狀況與其母公司評等並無關聯的情形外，惠譽將以母公司評等為依據。

市場風險敏感度評等

市場風險敏感度	市場風險敏感度評等	市場風險敏感度因素[a] (>=, <)
非常低	S1	<2.0
低度	S2	2.0-4.0
中度	S3	4.0-7.5
中度至高度	S4	7.5-12.5
高度	S5	12.5-17.5
非常高	S6	17.5-25.0

[a]特定國內市場可能適用不同的尺度上限，以反映詳載於附錄 A 中特定市場的管制及結構特性
來源：惠譽評等

Fund Market Risk Sensitivity Rating – Simplified Diagram



Source: Fitch Ratings

市場風險分析：惠譽的市場風險因素

基金市場風險敏感度評等主要基於對投資組合的市場風險因素的分析。

計算投資組合的市場風險因素，應針對投資組合利率期間與投資組合中經調整風險的證券利差持續期間（risk-adjusted spread duration）進行綜合評估，並根據槓桿的使用調整結果。證券占投資組合的比重取決於視該證券占投資組合市場價值的比例。投資組合市場風險因素越高，通常對於利率、利差及其他市場風險變數的敏感度就越高。

其他經惠譽納入分析的市場風險因素包括集中度風險、貨幣風險、避險策略及其他風險。

利率風險

惠譽以修改後存續期間（modified duration）作為衡量利率風險的主要方法，其是指市場價值對於利率變動水準的敏感度，並假設殖利率曲線為平行移動。惠譽藉由分析個別證券及投資組合修改後持續期間，以進行利率風險的評估。本機構在利率風險分析中，也可能計算投資組合加權平均利率重置日 (Weighted Average Maturity, WAM)，以作為代表修改後存續期間的保守指標。當基金投資在各種不同部位 (例如 CDS 指數、基金或 ETF) 時，惠譽會使用該指數的加權平均存續期間及信用評等計算 MRS。

利差風險

利差風險考量投資組合市場價值對於信用利差變動的敏感度。「信用利差」在反映市場對於持有品質「低於最高品質」(通常是政府發行) 證券者要求的風險溢價，無論是基於信用、流動性或技術面理由。

利差風險可透過計算投資組合利差持續期間 (spread duration) 加以評估[2] (對於利差變動的敏感度)，並依據利差風險因素調整計算結果。本機構也可能在其利差風險分析中，計算投資組合的加權平均最終到期日 (Weighted Average Life, WAL)，此可作為代表利差持續期間的保守指標。

[2]針對固定利率債券及票據，利差持續期間與首期指標相同。

惠譽將利差風險因素詳細列於下方表格中。利差風險因素是以信用違約交換 (CDS) 利差的歷史波動性為基礎，併同考量每一評等水準的固定收益指數報酬波動性分析。因此，用以支持這些因素發展的分析，將同時考量對利差變動的敏感度（基金利差持續期間）與利差歷史性波動的相對水準。

利差風險因素不適用於「最高品質」證券 (受評為「AAA」的證券)，惠譽針對「AA」類別水準則適用遞增的利差風險因素。惠譽利差風險因素會在信用風險下降時向上提高。

利差風險因素[a]

	AAA	AA	A	BBB	BB	B	CCC 以下
利差風險因素	0.0	0.1	0.3	1.0	3.0	8.0	12.5

[a] 基於 Fitch Solutions 有關 2007 – 2019 年間非金融企業 CDS 利差波動分析，以及 Bank of America Merrill Lynch (美國美銀集團) 1997 - 2019 年間全球固定收益市場指數總報酬波動性分析。利差風險因素是以「AA」類別水準相關的 CDS 利差波動性作為評估基礎
來源：惠譽評等

利差風險的計算是將證券的利差持續期間乘以與證券信用風險相當的利差風險因素。此計算是在單個證券層級進行。*附錄 B* 中提供關於此一計算的範例。

惠譽承認部分資產類別的利差風險敏感度，可能與其核心利差風險因素的假設有所不同。因此，惠譽檢視受評基金的資產類別、區域及證券類別曝險，以作為其評等分析的一部份。若惠譽認定基金四分之一以上的投資組合是在證券，且其自身的絕對及/或相對利差風險敏感度的波動性，明顯不同於 CDS 利差及衍生自利差風險因素的固定收益指數波動性，惠譽將針對反映自其核心利差風險的市場敏感度評等進行一些質性調整，或調整用於其評等分析的利差風險因素。

此處理方式將會在相關評等行動評論中揭露。針對因欠缺資料而無法確切認定利差風險敏感度不同的市場，惠譽將採用標準利差風險因素。

市場風險因素 = 持續期間 + (利差持續期間 x 利差風險因素)

投資組合可能因為高度投資浮動利率金融工具，而同時具有極低的利率風險敏感度與大幅增加的利差曝險。鑒於浮動利率票據通常會每季重置利率，內含多數此類證券的投資組合將具有極低的利率風險 (精準而言，是指 90 天以內)，但這些金融工具的最終到期日可能較長，因此產生較高的利差風險。針對此類基金，特別是具有較高評等的投資組合，可能出現低市場風險因素的計算結果。惠譽針對市場風險因素計算保留適用質性調整的權利，以承認風險的槓鈴效應。

槓桿 (財務及經濟)

投資組合可能採用槓桿方式，以達成其投資目的。此通常可藉由證券借貸協議 (特別是逆向附買回交易)、信貸額度、保證金融資或衍生性工具，例如期貨或總收益交換。許多衍生性工具或結構型證券也創造出*事實面*或經濟面的槓桿作用，使投資人得以較低的投資金額取得較高的殖利率，但是要負擔較高的價格及總收益波動。

當評估投資組合槓桿作用的影響時，惠譽會以線性方式倍數計算市場風險因素。以前項公式為基礎，市場風險因素計算可擴張納入槓桿影響如下：

市場風險因素 = [持續期間 + (利差持續期間 x 利差風險因素)] x 槓桿。

貨幣風險

投資組合可能包括未避險且以多國貨幣計價的資產及/或負債。貨幣風險的影響評估是相對與投資組合標的使用的基準貨幣的。若惠譽認為基金具有重大外幣風險，其將針對市場風險因素進行質性調整。

如果投資組合由不同貨幣計價的證券匯集組成，並提供投資人選擇贖回貨幣和申購時同樣計價貨幣的機會，其不同的貨幣分類基金的市場風險敏感度評等可能不同。

不計入任何從基金計價貨幣換算為投資人自身特定基準 (或會計用) 貨幣的後續收益，此貨幣風

險仍待相對應的對沖或不對沖。

惠譽也試圖辨識其他 NAV 可能具有敏感性的風險因素，且在處理這些因素時運用分析式判斷。例如，若惠譽相信投資人狀況與基金及 / 或資產狀況間有顯著錯配的情形，而可能增強基金對於流動性事件的敏感度，惠譽可能會對市場風險敏感性評等採取質性調整，以反映超乎正常的市場風險敏感性。此類調整將針對個案逐一為之，且惠譽將在各自評等行動評論中揭露此類評等驅動因素。

避險

部分投資組合有能力使用衍生性工具，以規避市場風險或對其曝險程度進行更動態的管理。惠譽評估避險時，會將系統性避險與自主酌情交易 / 調整加以區分。若經理人能證實其具有透過一些部位進行結構性調降市場風險敏感度的能力，惠譽會在其基金市場風險敏感度評等中承認系統性避險的存在。

例如，基金可能使用利率交換 (或其他金融工具)，以降低投資組合對於利率風險的敏感度。若此例中的經理人能向惠譽證實避險策略有效並持續適用，且經理人具有可信的避險管理能力，惠譽會將此結果納入分析當中。在此情形中，由於利率避險機制的效果，惠譽會將低於投資組合實際持有期間的持續期間，作為市場風險因素計算基礎。惠譽考量上開「交易對手風險」一節所說明的交易對手品質。

經壓力測試的市場風險因素

惠譽對 MRF 採用特定壓力測試，以估計最終評等對於集中度風險的敏感度。然而，利率及利差風險仍為基金市場風險敏感度評等的主要決定性因素。惠譽適用下列壓力測試：

- 針對最大曝險、前三大曝險及前五大曝險，均調降一級信用評等，並重新計算 MRF。這些情境評估潛在投資組合的集中度風險，其可能導致更高的市場風險敏感度。
- 所有低於 (非壓力測試下) WARF 對應基金評等水準兩個以下評等類別的投資組合證券，均向下調降一級，並重新計算 MRF。此情境可反映出「槓鈴式」信用風險的影響。

當授予最終「市場風險敏感度評等」時，由於 MRF 對於壓力測試的敏感度會影響利差風險計算，評等委員會將會對此進行分析。針對 MRF 對於上開壓力測試反應特別敏感的基金，在惠譽可能調整評等，以反映相較 MRF 更高的市場風險敏感度。

監控

惠譽進行更新與維持評等的過程時，將檢視受評基金的最新與過往資訊。

惠譽要求受評基金定期提供基金投資組合的資訊。在大多數的情況下，惠譽要求基金至少每月提供這類資訊，法規限制導致資訊提供頻率降低的情況除外。若投資組合的過往成分以及基金架構與性質，足以證明基金具有穩定性（比如買入持有策略的養老金），惠譽可能會以較低頻率要求提供資訊。本機構將針對此類個案逐一評估。

如有可能，惠譽將要求這類資訊應由獨立於基金經理人的來源提供，即託管銀行或同等機構。當無法取得這些來源提供的資訊，惠譽將會接受來自基金經理人本身提供的資訊，特別是當經理人向管制機關提供此資訊，或當惠譽能定期確認資訊精確度，例如基於基金的稽核後年度財務報表。

惠譽要求提供投資組合部位的下列基本資訊：

- 證券名稱或相關辨識碼 (例如 ISIN 或 CUSIP 代碼，如適用)
- 基金基準貨幣目前的市值曝險 (CDS 名目價值)

惠譽亦可能要求提供其他資訊，以輔助分析作業，例如：

- 預期到期日 (資產擔保證券的加權平均年限，投資人擁有賣權時則以賣出日期為準)
- 法定最終到期日
- 下一個利率重置日
- 目前的證券評等 (包括觀察名單與展望，如適用)
- 貨幣
- 資產類別

惠譽與受評基金經理人定期舉行會議時，將討論避險策略 (如適用)。

惠譽承認，在少數情況下，投資組合重要指標的變動，可能暫時略為超出既有評等的評等準則範圍。例如，若相關資產的評等遭到調降，可能導致投資組合的 WARF 略高於投資組合現有評等類別的上限。大幅及 / 或持續偏離評等準則範圍的情況，固然將導致評等受到影響，但若資產經理人提出可信且可行的近期補救行動從而消除或減輕風險，惠譽通常可給予合理的寬限期。惠譽將針對這類個案逐一評估，以判定這些偏離是否對於評等造成重大影響。

準則變動

惠譽之準則應結合評審委員會的豐富經驗與分析判斷一併使用。透明的評等準則、基於每筆交易或每個發行機構為基礎的分析判斷，與透過評等評論的完整揭露，進而強化惠譽評等過程，同時有助於市場參與者瞭解評等背後的分析。

評等委員會可能調整這些準則的適用，以反映特定交易或實體的風險。此類調整稱為準則變動。所有變動均會在各自評等行動評論中揭露，包括揭露其對於評等的影響 (如適當)。

當與評等授予相關的風險、特性或其他因素及其適用方法皆納入於準則範疇內，但為強調特定交易或實體的特定因素，而有修改準則所述分析的必要時，評等委員會有權核准準則的變動。

限制

分析及評等決定是以相關公開及非公開資訊為基礎。本資訊主要來源為發行機構及 / 或基金管理機構與公眾領域。此包括公眾可取得與資金相關的資訊，例如稽核後及未經稽核 (例如期中) 財務報表及管制申報資料。評等過程可納入第三方來源提供的資訊。每份評等行動評論均會揭露對於評等結果具有重要性的相關資訊來源。

在特定證券或司法管轄領域可得來源範圍內，惠譽依據其評等方法，針對其所根據的事實資訊進行合理調查，並自獨立來源取得其對該資訊的合理驗證。發行機構得於任何時點選擇不與外部人士分享特定資訊，包括評等機構。儘管惠譽期盼同意參與評等過程的發行機構或其代理商，及時提供用以評估發行機構評等及所有相關證券的資料，但惠譽無權亦無意強迫任何發行機構或其代理商揭露資訊。

這份全球主要非信用準則報告，主要介紹本機構的國際及國內評等等級。本準則中的所有評等因素不一定適用在每一次的評等行動。每一次特定評等行動評論或評等報告，均將揭露與該個別評等行動最具關連性的因素。

本準則報告主要聚焦於債務證券的投資組合，例如債券及貸款基金、短期債券基金、LGIPs、固定收益債務ETF及委託管理的固定收益債券組合。這些基金可能包含各種不同的債類工具，例如債券及貸款、銀行資本、主權債務及結構型金融證券。惠譽通常依據其 *Money Market Fund Rating Criteria* 進行貨幣市場基金評等。

針對具有較高風險項目的基金，惠譽較有可能依據相匹配的準則進行評等。儘管投資人預期高評等短期債權基金提供一定程度的流動性水準及有限度的NAV下跌風險，但他們通常不能直接與貨幣市場基金相比。貨幣市場基金將其資本的安全性及流動性已內含於基金營運指南，且在特定的市場中亦有相關法規明文規範。

本報告並未涵蓋依據 1940 年《投資公司法》及其後修正所規範的美國及非美國境內槓桿式封閉型基金。本機構準則報告中會具體指出這些基金：*Rating Closed-End Funds and Market Value Structures*。

惠譽債券基金評等的另一限制包括事件風險。事件在此定義為無法預見的事件，在得知此事件前，現有評等均不會將之納入。基金的重大事件風險包括市場價格或流動性發生突發性、劇烈性及不可預期的變動、負面管制決定、訴訟及大規模贖回。評等可能已包括基金易受金融市場事件或管制壓力影響的合理假設，但事件細節及其效果須至事件發布或完成時方可得知，且事件對於評等的影響也在此時點獲得確認。惠譽並未針對投資人在開放型基金可能面臨的贖回風險提供意見。

額外限制：

- 評等並未預測投資組合在任一特定時點的績效水準或範圍。
- 評等並未針對投資組合是否合於投資或其他目的提供意見。
- 除已投資的投資組合實際及潛在平均信用風險外，基金信用評等並未對投資組合相關品質提供意見。
- • 基金市場敏感度評等僅針對特定事件提供意見, 如投資組合總收益及 / 或淨資產價值對於信用利差及利率變更的敏感程度。此評等也提供其他市場風險參數相關的觀點，並考量槓桿作用的效果 (如適用)。

基金市場風險敏感度評等並未預測此類市場條件的變動方向或幅度，因此並未預測特定基金或投資組合未來表現的好壞。基金市場風險敏感度評等並未衡量投資組合對極端風險的敏感度，這類風險可能源自次級市場流動性在特定時期內降低的情況，或以封閉型基金而言，則可能源自次級市場價格對於基金份額的影響。

若要瞭解基金信用風險評等及基金市場風險敏感度評等定義，請參考惠譽網站

(https://www.fitchratings.com/creditdesk/public/ratings_defintions/index.cfm).

Bond Fund Rating Criteria

Master Criteria

This report replaces the Global Bond Fund Rating Criteria Report published on 22 August 2016.

Scope

This Criteria Report applies to portfolios investing in debt and debt-like securities, including short- and long-term bond funds, loan funds, local government investment pools (LGIPs), debt security exchange-traded funds and privately managed pools. They may contain a variety of short- and long-term debt and debt-like instruments, such as commercial paper, certificates of deposits, bonds, loans, preferred securities, repurchase agreements, sovereign debt, structured finance securities, and credit default swaps.

Bond Fund Ratings are assigned to a portfolio of assets, rather than an individual security. The rating is not assigned to debt issued by closed-end funds or investment trusts. Fitch Ratings has developed separate criteria for this; see *Closed-End Funds and Market Value Structures Rating Criteria*. However, the *Bond Fund Rating Criteria* can be used to rate closed-end fund and investment trust portfolios themselves.

Key Rating Drivers

Portfolio Credit Risk: The Fund Credit Quality Rating (denoted with an 'f' suffix) measures vulnerability to losses as a result of credit defaults and is primarily influenced by a portfolio's weighted average rating factor (WARF).

Asset-Level Rating Factors: The WARF of the portfolio of assets is derived from Fitch-defined credit risk factors applied to each asset and/or counterparty based on their public ratings, credit opinions or other comparable measures of default risk, and their maturity.

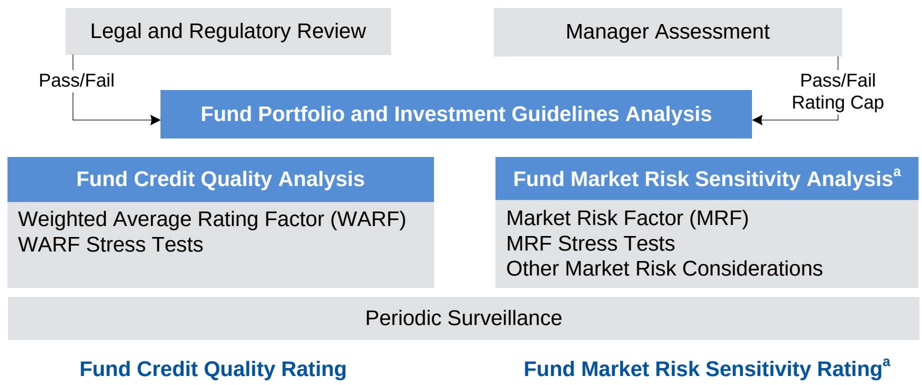
Asset Manager Assessment: Fitch reviews the portfolio manager's capabilities to assess whether it is suitably qualified, competent and capable of managing the portfolio. Fitch will not rate portfolios from managers that fail to pass this assessment.

Legal and Regulatory Review: Portfolios must pass a legal and regulatory screening process, including the legal segregation and security of the portfolio's assets.

Market Risk Sensitivity: In certain circumstances, subject to market relevance or regulatory demand, Fitch may also assign a complementary Fund Market Risk Sensitivity Rating to express an opinion on a portfolio's sensitivity to market risk factors, such as interest-rate risk, spread risk, currency fluctuations, and leverage.

Active Ratings Surveillance: Fitch requests periodic (typically monthly) portfolio holdings and relevant performance statistics to monitor the ratings.

Global Bond Fund Rating Criteria – Simplified Diagram



[a] Subject to market relevance or regulatory demand
Source: Fitch Ratings

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Global Bond Fund Rating Criteria Framework

Fitch's Global Bond Fund Rating Criteria are used to assign portfolios a Fund Credit Quality Rating. The ratings are expressed on the traditional 'AAA' scale, with the addition of an 'f' suffix to distinguish it from traditional credit ratings assigned to individual issues and issuers. In certain markets where there is market and/or regulatory demand, the criteria also may be used to assign a Fund Market Risk Sensitivity Rating. Fund Credit Quality and Fund Market Risk Sensitivity ratings may be assigned alone or together to reflect the credit and market risks to which fund investors are exposed.

To qualify for international scale Bond Fund Ratings a fund or portfolio must demonstrate a minimum level of diversification, across five obligors or more and no excessive concentration (>30%) with any of those obligors under this criteria, unless there are other relevant mitigating factors. These might include material exposures to high quality sovereign, supranational and agency issuers, which are not covered by these diversification considerations.

Obligor exposures can be 'cash' or synthetic, achieved through derivatives that reference a portfolio of securities or an index. For example, Fitch could assign Bond Fund Ratings to a portfolio or fund which engages in total return swaps (TRS), basing its analysis on the swap counterparty and the credit quality of the underlying portfolio of fixed-income securities referenced under the TRS. Limitations to Fitch's *Bond Fund Rating Criteria* are presented at the end of this report.

In certain markets, Fitch assigns National Scale ratings where the rating scale may be determined by the local regulatory authorities. For more information on how Fitch adapts this criteria for National Scale ratings see *Appendix A: National Scale Bond Fund Ratings*.

- Fund Credit Quality Rating: an opinion on the overall credit profile and vulnerability to losses as a result of defaults within a fixed-income fund or portfolio. The ratings are based on the actual and prospective average credit quality of the underlying portfolio holdings. Fund Credit Quality Ratings have an element of rating momentum embedded and, therefore, address the likelihood that a portfolio maintains a given credit quality over time.
- Fund Market Risk Sensitivity Rating: an opinion on the relative sensitivity of a portfolio's total return and/or net asset value to assumed changes in credit spreads and interest rates as well as certain other market risk parameters, and taking into account the effects of leverage, where applicable. Fund Market Risk Sensitivity Ratings do not predict the direction or magnitude of changes in market conditions and therefore do not predict whether, or the extent to which, any particular fund or portfolio will perform favourably or adversely in the future. Fund Market Risk Sensitivity Ratings do not gauge the sensitivity of a portfolio to extreme risks that may result from reduced liquidity in secondary markets during certain periods.

Actively managed portfolios typically follow a set of investment guidelines. The agency considers whether investment guidelines that differ from the current portfolio should lead to more conservative ratings to reflect potential changes in the underlying portfolios over time. For example, Fitch may assign ratings to newly launched portfolios. In such cases the initial portfolio may not be fully representative of the longer-term or target portfolio. Therefore, subject to a satisfactory legal and regulatory review and manager assessment, Fitch may base its ratings on a conservative analysis of the portfolio's agreed investment guidelines. In such cases the agency may make additional adjustments in its analysis to better reflect potential risks that may affect the portfolio.

Fitch may impose qualitative caps on the Fund Credit Quality Rating and/or Fund Market Risk Sensitivity Rating or elect not to rate portfolios that, in Fitch's opinion, use an excessive amount of leverage. Specifically, if a portfolio's Market Risk Factor (see: Criteria for Fund Market Risk Sensitivity Ratings, below) was well in excess of Fitch's upper bound due to leverage then Fitch may decline to rate the fund. For example, if the calculated Market Risk Factor on a portfolio of five-year ‘BBB’ securities were 30 due to leverage (compared with around five without leverage), Fitch would judge the level of leverage excessive and would decline to rate the fund.

Legal and Regulatory Review

The legal frameworks in which funds and portfolio mandates are established are not uniform. Fitch reviews the legal environment in which a portfolio or fund operates as it relates to legal segregation of fund assets and valuation practices. This review considers the potential difficulties that may arise in identifying ownership of assets and, in particular, whether the assets are appropriately segregated and secure such that the assets would be returned in a timely manner. Should Fitch identify material weaknesses in the segregation and security of a portfolio or fund’s assets, it will not assign a rating.

Investment Manager Evaluation

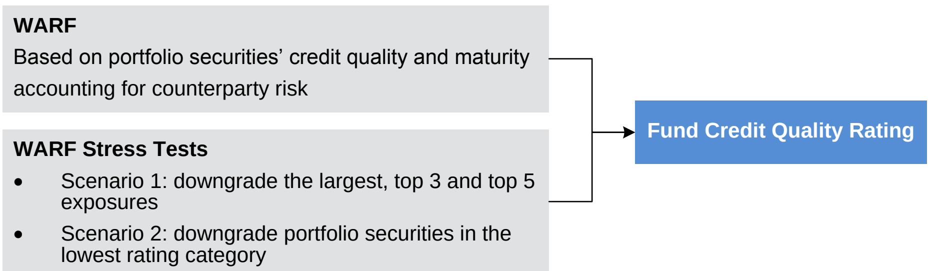
Fitch evaluates the investment manager responsible for managing portfolios. The agency seeks to establish that the investment manager is suitably qualified, competent and capable of managing the portfolio, with a distinct assessment between actively and passively-managed portfolios. If this cannot be established, Fitch will not rate the fund. Multiple portfolios can be rated once the manager assessment process has been completed. Areas of focus include:

- The investment manager’s business and financial stability, staffing and technology resources, controls and governance.
- Record in managing the asset class under review.
- For actively managed portfolios, Fitch also takes into consideration the experience of key investment staff. For newly launched funds or investment managers, Fitch looks at the experience of such staff in managing comparable mandates or strategies.

Criteria for Fund Credit Quality Ratings

Fund Credit Quality Ratings are based on the actual and prospective weighted average credit quality of the underlying portfolio holdings. Fund Credit Quality Ratings are not point-in-time and, therefore, have an embedded element of rating momentum to address the likelihood that a portfolio maintains a given credit quality over time.

Fund Credit Quality Rating – Simplified Diagram



Source: Fitch Ratings

Fund Credit Quality Ratings are principally driven by the WARF of the portfolio, factoring in securities on negative Rating Watch, specific stress tests as defined in these criteria and other credit considerations such as counterparty risk, concentration and derivatives. In addition, ramp-up periods for new funds and wind-down periods for finite life bond funds are rating considerations(See appendix D for further detail).

The Weighted Average Rating Factor

Fitch calculates the portfolio's WARF as the primary driver of the Fund Credit Quality Rating. The Fund Credit Quality Rating is largely guided by the rating implied by the WARF calculation, as detailed in the table at the bottom of this section. A portfolio's WARF is the market value-weighted sum of each portfolio security's credit rating factor, including the maturity of the instrument, based on legal final maturity dates in most cases. Case-by-case exceptions include structured finance securities, where Fitch may opt to look to the weighted average life, and securities that benefit from a demand feature or put option at the investor's option, which are considered on the maturity terms of such feature.

Fitch will consider perpetual instruments on a case-by-case basis for those securities with a call option at the issuer's option when deciding on maturity terms. Fitch will apply a standard 30-year maturity for perpetual instruments without put or call options.

Fitch's rating factors can be found in the table below. They are derived from observed cumulative 10-year default frequencies, consistent with the approach taken in Fitch's Portfolio Credit Model. These factors can be updated periodically.

The rating factors applied or the approach to determining the applicable rating factors may differ in certain National Markets to reflect the specific characteristics of that market as detailed in *Appendix A*. A portfolio's WARF is calculated based on the market value (notional for CDS or other comparable derivatives) of the portfolio's underlying assets. Consequently, the contribution of individual securities to the overall portfolio WARF will change with those securities' market values.

Short positions are not taken into consideration when calculating the agency's WARF. For holdings where credit risk is fully hedged using derivatives (eg with a matched notional and term), Fitch may calculate the position's WARF using the market value of the derivative position and the credit quality of the derivative counterparty, if the counterparty is rated. *Appendix B* contains an example of the WARF calculation.

Fund Credit Quality Rating – Credit Risk Factors

By underlying security rating category and remaining maturity

Residual maturity	AAA	AA	A	BBB	BB	B	CCC	CC/C
0 – 90 days	0.00	0.01	0.2	0.6	5.0	20.0	40	100.0
91 – 397 days	0.01	0.1	0.3	1.0	7.0	28.0	62.8	100.0
398 days – 3 years	0.1	0.2	1.0	2.0	10.0	32.2	62.8	100.0
> 3 years	0.2	0.6	1.6	4.5	17.4	32.2	62.8	100.0

Source: Fitch Ratings

Calculating WARF

Factors applied to securities with only short-term ratings

ST Rating	Factor
F1+	AA
F1	A
F2	BBB
F3	BBB

Source: Fitch Ratings

The WARF is calculated at the category level (e.g. 'BBB') rather than the notch level (e.g. 'BBB+') which results in wider WARF ranges and allows for normal portfolio turnover while promoting ratings stability. The WARF represents a portfolio's average credit risk and helps in comparing intrinsic credit quality across different portfolios.

When calculating the WARF, Fitch assumes all securities subject to a negative Rating Watch (or comparable nomenclature under other rating scales) are rated one notch lower than the assigned rating. This treatment only affects ratings on the cusp of falling into another rating category (for instance a 'AA-' that could fall into the 'A' category). No comparable adjustment is made for securities that are assigned a positive Rating Watch or for securities subject to an Outlook, whether positive or negative. For securities that only carry a short-term rating, Fitch uses the conversions detailed in the margin table on the left.

In cases of highly concentrated funds, or derivatives-based funds with a low number of counterparties, Fitch may credit-link the rating of the fund to that of the lowest rated obligor or counterparty. Specifically if a fund has more than five but less than 10 obligor exposures, other than relating to high-quality sovereigns, supranationals and agencies, and any one of those exceeds 30% of the total portfolio, Fitch will credit link the Fund Credit Quality rating to that of the lowest rated obligor or counterparty.

Fitch uses issue-specific ratings in its analysis, which take into consideration subordination and potential collateralisation. The agency starts with its own ratings. Where these ratings are not available, the lowest of other ratings assigned by recognised global agencies is applied. Where a fund invests in diversified positions (such as CDS indices, funds, or ETFs), Fitch uses the weighted-average rating of the index in its WARF calculation. For a single name credit default swap, Fitch considers the rating of the reference entity.

For assets that are not publicly rated by one or more globally recognised rating agencies, Fitch will assume the asset is rated 'CCC' for the purpose of its WARF calculation. There are two exceptions to this approach: first, if Fitch maintains, or asks the relevant analytical team at Fitch to provide a credit opinion or a privately-monitored rating. Second, in limited circumstances, the agency may consider the fund manager's own credit assessments, if the Fitch rating committee judges them to be comparable to the agency's own internal credit assessment. This approach would, however, only be on a case-by-case basis and the agency would expect securities with ratings obtained in this manner to make up in aggregate 10% or less of the portfolio.

Guideline WARF Ranges

WARF range (>=, <)	WARF-implied fund credit quality rating
0.00 - 0.3	AAA
0.3 – 1.0	AA
1.0 – 2.6	A
2.6 – 8.8	BBB
8.8 – 22.3	BB
22.3 – 42.4	B
42.4 – 100	CCC and below

Source: Fitch Ratings

Counterparty Risk

Portfolios may be exposed to counterparty risk from different sources, including repurchase agreements, swaps, or cash deposits. Non-cash counterparty exposures that are not subject to frequent margining and appropriate levels of collateralisation are not eligible exposures in Fitch-rated funds. In the case of repurchase agreements where the fund is the lender, Fitch typically bases its WARF and MRF calculations on the credit quality (ie rating) of the counterparty and the term of the repo contract[1].

Fitch may, however, consider the quality and maturity of the collateral for the purpose of its WARF and MRF calculations if the counterparty is unrated or deemed to be of a highly speculative credit quality. Additionally, where the repo contract is fully backed by liquid collateral of high quality (i.e. highly rated government securities), where there is substantial visibility on the collateral composition and the composition of the collateral is expected to remain consistent, and the repo contract is governed by a legal regime under which there is only a remote risk of any stay (as defined by standard developed-market convention; the ISDA U.S. Stay Protocol, for example) on repo collateral in the event of counterparty failure, then Fitch may look to the credit quality of the underlying collateral and the maturity of the repo contract in its WARF and MRF calculations.

For non-fixed income collateral a 'CCC' rating factor and duration of 30 years is applied to the WARF and MRF calculations.

[1] In repurchase agreements with unrated counterparties that are subsidiaries of rated financial institutions, Fitch will look to the ratings of the parent company, except in circumstances when the agency believes the credit profile of the unrated subsidiary would not be linked to its parent's rating.

Repo transactions not collateralised by high quality collateral or exposed to the risk of a stay in bankruptcy are treated as direct unsecured credit exposure to the counter party.

Cash

Funds may have cash balances of different sizes at different times, held in bank deposits or invested in money market instruments. Fitch treats such exposures as it would any other exposure in its rating analysis. For example, Fitch would use a rating factor of 0.01 for a 60-day time deposit with an 'AA' rated bank.

Some funds may be able to leave cash uninvested at the fund's custodial bank. For such cases, Fitch uses the rating factor corresponding to the bank credit quality in its portfolio WARF calculation, unless there is full segregation of uninvested cash balances at the fund's custodian, and where such cash is legally and operationally ring-fenced from other bank creditors, such as under UCITS V legislation. In these cases, a rating factor of 0 is applied for the purpose of WARF calculation.

WARF Stress Tests

- Fitch applies specific stress tests to the WARF to gauge the final rating's sensitivity to downward ratings migration of specific exposures. Fitch applies the following stress tests:Downgrade the credit ratings of the largest, top three and top five exposures by one notch and recalculate the WARF. These scenarios evaluate potential portfolio concentration risk, which may entail greater tail credit risk and vulnerability to losses.
- Downgrade all portfolio securities that are rated two categories or more below the (non-stressed) WARF-implied fund rating level by one 'notch' and recalculate the WARF. This scenario captures the effect of potential credit 'barbelling'.

A rating committee analyses the sensitivity of the stressed WARFs to these stress tests when assigning a final Fund Credit Quality Rating. In the case of funds whose WARFs are particularly sensitive to the stress tests above, Fitch may assign lower ratings, including through the application of rating modifiers ('+' and '−') to reflect the relative risk of the fund within the rating category.

Criteria for Fund Market Risk Sensitivity Ratings

Fitch may assign Fund Market Risk Sensitivity Ratings in certain instances, subject to market relevance or regulatory demand, in addition to the Fund Credit Quality Rating. Fund Market Risk Sensitivity Ratings are primarily based on an analysis of a fund portfolio's interest rate duration (modified duration) and spread duration, and adjusted for the effects of leverage (where applicable), as measured by Fitch's market risk factor detailed below. Fund Market Risk Sensitivity Ratings are expressed on a scale ranging from 'S1' (very low sensitivity to market risk) to 'S6' (very high sensitivity to market risk).

Market Risk Sensitivity Ratings

Market risk sensitivity	Market risk sensitivity rating	Market risk sensitivity factor[a] (>=, <)
Very low	S1	<2.0
Low	S2	2.0-4.0
Moderate	S3	4.0-7.5
Moderate to high	S4	7.5-12.5
High	S5	12.5-17.5
Very high	S6	17.5-25.0

[a] Different cut-off points may be applied in certain national markets to reflect regulatory and structural characteristics of that specific market as detailed in Appendix A
Source: Fitch Ratings

Fund Market Risk Sensitivity Rating – Simplified Diagram

Market Risk Factor
Interest rate risk
Spread duration and spread risk factors
Leverage

Market Risk Factor Stress Tests
- Scenario 1: downgrade the largest, top 3 and top 5 exposures
- Scenario 2: downgrade portfolio securities in the lowest rating category

Other market risk considerations

Fund Market Risk Sensitivity Rating

Source: Fitch Ratings

Market Risk Analysis: Fitch's Market Risk Factor

An analysis of the portfolio's market risk factor serves as the primary tool used in assigning Fund Market Risk Sensitivity Ratings.

A portfolio's market risk factor is calculated by combining the portfolio interest rate duration and risk-adjusted spread duration of the securities in the portfolio, and adjusting the result for the effect of any leverage. The weight of a security is the proportion of the market value of a portfolio represented by that security. As a rule, the higher the portfolio's market risk factor, the higher the sensitivity to interest rate, spread and other market risk variables.

Other market risk factors that Fitch may factor into its analysis include concentration risk, currency risk, hedging strategies and other risks.

Interest Rate Risk

Fitch's primary measure of interest-rate risk is modified duration (i.e. the sensitivity of market value to changes in the levels of interest rates, assuming a parallel shift in the yield curve). Fitch evaluates interest-rate risk by analysing modified duration at the individual security and portfolio levels. The agency may also calculate a portfolio's weighted-average maturity to interest-rate reset date (WAM) in its interest-rate risk analysis as a conservative proxy for modified duration. Where a fund invests in diversified positions (such as CDS indices, funds, or ETFs), Fitch uses the weighted-average duration and credit ratings of the index in its MRS calculation.

Spread Risk

Spread risk considers the portfolio's market value sensitivity to changing credit spreads. Credit spreads reflect a risk premium demanded by the market for holding securities of a 'lesser' quality than 'the highest quality' (usually government) securities — for credit, liquidity or technical reasons.

Spread risk can be measured by calculating a portfolio's spread duration[2] (sensitivity to changing credit spreads) and adjusting that calculation according to a spread risk factor. The agency may also calculate a portfolio's weighted-average life (WAL) in its spread risk analysis as a conservative proxy for spread duration.

Fitch's spread risk factors, detailed in the table below, are based on the historic volatility of credit default swap (CDS) spreads, combined with an analysis of observed fixed-income index return volatility at each rating level as the breadth and availability of CDS spread data can vary. The analysis supporting the development of these factors therefore considers both the

[2] In the case of fixed-rate bonds and notes, the spread duration is the same as the first duration metric.

sensitivity to spread movements — as measured by the fund's spread duration — as well as the relative level of spread volatility observed historically.

Fitch applies no spread risk factor to 'the highest quality' securities, i.e. those rated 'AAA', and an incremental spread risk factor at the 'AA' level. Fitch's spread risk factors increase as credit quality decreases.

Spread Risk Factors[a]

	AAA	AA	A	BBB	BB	B	CCC and below
Spread risk factor	0.0	0.1	0.3	1.0	3.0	8.0	12.5

[a] Based on an analysis of Fitch Solutions non-financial corporate CDS spread volatility for the period 2007 – 2019 and Bank of America Merrill Lynch global fixed income market index total return volatility for the period –1997 -2019. Spread risk factors are based on volatility of observed CDS spreads relative to those observed at the 'AA' level
Source: Fitch Ratings

Spread risk is accounted for by multiplying the security's spread duration by the spread-risk factor corresponding to the credit quality of the security. This calculation is performed at an individual security level. An example of this calculation is presented in *Appendix B*.

Fitch recognises that some asset classes may have spread risk sensitivities that differ from the assumptions incorporated in its core Spread Risk Factors. Accordingly, as part of its rating analysis Fitch reviews the asset class, geography and security type exposures of funds it rates. Should Fitch determine that the fund has more than approximately a quarter of the portfolio in securities for which the absolute and/or relative spread risk sensitivity exhibits markedly different volatilities from those observed in CDS spreads and fixed-income index volatilities from which the spread-risk factors are derived, then the agency will either apply a qualitative adjustment to the Market Sensitivity Rating implied from its core spread risk factors or adjust the spread-risk factors used in its rating analysis.

This treatment will be disclosed in the associated rating action commentary. Fitch will utilise the standard spread risk factors in markets where it is unable, because of a lack of data, to reliably determine that spread risk sensitivity is different.

Market Risk Factor = Duration + (Spread Duration x Spread Risk Factor)

Portfolios may be constructed with very low sensitivity to interest-rate risk and materially greater exposure to spread risk by heavily investing in floating rate instruments. Given that floating rate notes typically reset quarterly, a portfolio composed largely of such securities will have very low interest-rate risk – 90 days or less to be precise – but the final maturity of these instruments may be longer, resulting in higher spread risk. The market risk factor calculated for such funds, therefore, can be low, particularly for higher rated portfolios. Fitch reserves the right to apply qualitative adjustments to its market risk factor calculation to recognise this bar-belling of risks.

Leverage (Financial and Economic)

Portfolios may employ leverage to achieve their investment objectives. This is done typically through securitised lending arrangements (notably reverse repurchase agreements), bank lines, margin financing or derivatives such as futures or total return swaps. Many derivatives or structured securities also create *de facto* or economic leverage, offering investors higher yields with lower upfront investment, at the expense of greater price and total return volatility.

When evaluating the impact of leverage on portfolios, Fitch applies a multiplier to its market risk factor in a linear manner. Building on the previous formula, the market risk factor calculation can be expanded to incorporate leverage as follows:

Market Risk Factor = [Duration + (Spread Duration x Spread Risk Factor)] x Leverage.

Currency Risk

Portfolios may include unhedged multi-currency assets and/or liabilities. The impact of currency risk is assessed relative to the base currency of the portfolio in which the investment is made. If Fitch considers a fund to have material foreign-currency risk, it may apply a qualitative adjustment to the market risk factor.

A portfolio composed of a pool of securities denominated in different currencies but which offers investors a choice of the currency in which their participation is denominated, may have different Market Risk Sensitivity ratings for each currency class.

Any subsequent translation of returns into investors' own particular base (or accounting) currency from the currency in which the fund is denominated is not accounted for, and this risk remains for them to hedge — or not — accordingly.

Fitch also attempts to identify other risk factors to which the fund NAV might be sensitive to, and applies analytical judgement in its treatment of these factors. For example, if Fitch believes that there is a significant mismatch between the investor profile and the terms of the fund and/or asset profile that may heighten the fund's sensitivity to liquidity events, it may apply a qualitative adjustment to the Market Risk Sensitivity Rating to reflect a greater-than-normal market risk sensitivity. Such adjustments are performed on a case-by-case basis, and Fitch will disclose any such rating drivers in the respective rating action commentaries.

Hedging

Some portfolios have the ability to use derivative instruments to hedge market risk or manage their risk exposures more dynamically. In its assessment, Fitch distinguishes between systematic hedging and discretionary trading/adjustment. Recognition for systematic hedging may be given in the Fund Market Risk Sensitivity Rating if the manager can demonstrate its ability structurally to reduce market risk sensitivity through these positions.

For example, a fund may use interest-rate swaps (or other instruments) to reduce a portfolio's sensitivity to interest-rate risk. If the manager in this example can demonstrate to Fitch that the hedging strategy is both effective and consistently applied and that the manager has proven hedge management capabilities, then Fitch will factor the results into in its analysis. In this example, Fitch would base its market-risk-factor calculation on a lower duration than implied by the portfolio's actual holdings due to the effectiveness of the interest-rate hedging mechanism. Fitch considers counterparty quality as outlined in the Counterparty Risk section above.

Stress Tested Market Risk Factor

Fitch applies specific stress tests to the MRF to gauge the final rating's sensitivity to concentration risk. Interest-rate and spread risk, however, remain the primary determinants of the Fund Market Risk Sensitivity Rating. Fitch applies the following stress tests:

- Downgrade the credit ratings of the largest, top three and top five exposures by a notch and recalculate the MRF. These scenarios evaluate potential portfolio concentration risk, which may entail greater market-risk sensitivity.
- Downgrade all portfolio securities that are rated two categories or more below the (non-stressed) WARF-implied fund credit quality rating level by one notch and recalculate the MRF. This scenario captures the effect of credit barbelling.

A rating committee analyses the sensitivity of the MRFs to these stress tests, which affect the spread risk-factor calculations, when assigning a final Fund Market Risk Sensitivity Rating. In the case of funds whose MRFs are particularly sensitive to the stress tests above, Fitch may adjust the ratings to reflect higher market risk sensitivity than otherwise implied by the MRF.

Surveillance

Fitch reviews current and historic information on rated funds as part of its process for updating and maintaining its ratings.

Fitch requires rated funds provide the agency with periodic information on the fund's holdings. In most cases Fitch requires this information at least monthly, barring situations in which regulatory restrictions mean that the frequency of information provision is reduced. If the historical composition of the portfolio and the framework and nature of the fund provide evidence of stability (eg pension funds with buy and hold strategies), Fitch might require information less frequently. The agency will evaluate such instances on a case-by-case basis.

As far as possible Fitch attempts to acquire this information from a source independent of the fund manager, namely the custodian bank or equivalent. When these sources are not available, Fitch will accept information from the fund manager itself, particularly where the manager produces this information for a regulatory body, or where Fitch can periodically verify the accuracy of that information against, for example, the fund's audited annual financial statements.

As a minimum Fitch requires the following portfolio holdings information:

- Security name and relevant identifiers (such as ISIN or CUSIP numbers, where applicable)
- Current market value exposure (notional for CDS) in fund's base currency

Fitch may also request additional information to aid its analysis such as:

- Expected maturity (WAL for ABS, put date if put held by investor)
- Legal final maturity
- Next reset date
- Current issue specific ratings (including Watches and Outlooks where applicable)
- Currency
- Asset type

At its periodic meetings with managers of rated funds, Fitch will discuss hedging strategies (where applicable).

Fitch recognises that, in limited circumstances, changes in key portfolio metrics may moderately and temporarily move outside the agency's rating criteria for its assigned ratings. For example, an underlying asset downgrade may moderately increase the portfolio's WARF above the limit for the portfolio's current rating category. While material and/or continuous deviations from rating criteria will have rating implications, there is often a reasonable basis for a short grace period, provided the asset manager has proposed credible and achievable near-term remedial actions to resolve or mitigate the risks. Fitch will evaluate such instances on a case-by-case basis to determine whether the changes are material to the ratings.

Variations From Criteria

Fitch's criteria are designed to be used in conjunction with experienced analytical judgment exercised through a committee process. The combination of transparent criteria, analytical judgment applied on a transaction-by-transaction or issuer-by-issuer basis, and full disclosure via rating commentary strengthens Fitch's rating process while assisting market participants in understanding the analysis behind our ratings.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate.

A variation can be approved by a ratings committee where the risk, feature, or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

Limitations

Analysis and rating decisions are based on relevant public and non-public information. The main sources of this information are the issuer and/or fund administrator and the public domain. This includes publicly available information pertaining to the fund, such as audited and unaudited (e.g. interim) financial statements and regulatory filings. The rating process may incorporate information provided by third-party sources. The relevant source of information material to the rating is disclosed in every rating action commentary.

Fitch conducts a reasonable investigation of the factual information it relies on, in accordance with its rating methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or jurisdiction. Issuers may choose not to share certain information with external parties, including rating agencies, at any time. While Fitch expects each issuer that has agreed to participate in the rating process, or its agents, will supply promptly all information relevant for evaluating both the ratings of the issuer and all relevant securities, Fitch neither has, nor would it seek, the right to compel the disclosure of information by any issuer or any agents of the issuer.

This is a global master non-credit criteria report addressing the agency's international and national rating scales. Not all rating factors in these criteria may apply to each rating action. Each specific rating action commentary or rating report will discuss those factors most relevant to the individual rating action.

The primary focus of this criteria report is on portfolios of debt securities, such as bond and loan funds, short-term bond funds, LGIPs, fixed-income debt security exchange-traded funds and managed pools of fixed-income debt securities. These funds may contain a variety of debt instruments, such as bonds and loans, bank capital, sovereign debt and structured finance securities. In general, Fitch rates money market funds under its *Money Market Fund Rating Criteria*.

Funds with a broader risk mandate are likely to be rated by Fitch under these criteria. While investors expect highly rated short-term bond funds to offer a degree of liquidity and limited downside risk to fund NAV, they are typically not directly comparable with money market funds, where capital preservation and liquidity are embedded within fund operating guidelines and, in certain jurisdictions, mandated by regulation.

This report does not address the ratings of debt issued by US and non-US leveraged closed-end funds regulated under the Investment Company Act of 1940, as amended. These funds are specifically addressed in the agency's criteria report: *Rating Closed-End Funds and Market Value Structures*.

Another limitation to Fitch's bond fund ratings includes event risk. This is defined as an unforeseen event which, until the event is known, is not included in the existing ratings. Prominent event risks for funds include sudden, dramatic and unexpected changes in financial market prices or liquidity, adverse regulatory decisions, litigation and massive redemptions, driven by the abovementioned factors or otherwise. Ratings may already include a reasonable assumption that a fund is vulnerable to financial market events or regulatory pressures, but the specifics of the event and its effect will not be known until the event is announced or completed, at which point the effect on ratings can be ascertained. Fitch does not give an opinion on the redemption risk investors may face for open-ended funds.

Additional limitations:

- The ratings do not predict a specific level or range of performance of a portfolio over any given time.
- The ratings do not offer opinions on the suitability or otherwise of a portfolio for investment or any other purposes.
- Fund Credit Quality Ratings do not provide an opinion on any quality related to a portfolio other than the actual and prospective average credit quality of the invested portfolio.
- Fund Market Risk Sensitivity Ratings only offer opinions on certain matters such as the sensitivity of a portfolio's total return and/or changes in net asset value to assumed changes in credit spreads and interest rates. They also give views certain other market risk parameters, and take into account the effects of leverage where applicable.

Fund Market Risk Sensitivity Ratings do not predict the direction or magnitude of changes in such market conditions and therefore do not predict whether, or the extent to which, any particular fund or portfolio will perform favourably or adversely in the future. Fund Market Risk Sensitivity Ratings do not gauge the sensitivity of a portfolio to extreme risks that may result from reduced liquidity in secondary markets during certain periods or, in the case of closed-end funds, the effects of secondary market prices on the fund’s shares.

For Fund Credit Quality Rating and Fund Market Risk Sensitivity Rating definitions please refer to the Fitch Ratings website

(https://www.fitchratings.com/creditdesk/public/ratings_defintions/index.cfm).

Appendix A: National Scale Bond Fund Ratings

The agency assigns National Scale Ratings to funds operating in countries where, for some rating factors, a comparison with international ratings may not be applicable. In such instances, those factors are evaluated relative to local market features. Each National Rating Scale is unique and is defined to serve the needs of its local market. Comparisons between different national scales, or between an individual national scale and the International Rating Scale, are inappropriate and potentially misleading.

Consequently, National Bond Fund Ratings are identified by the addition of a special identifier for the country concerned, such as 'AAf/S1(mex)' for National Bond Fund Ratings in Mexico. In certain countries, the National Bond Rating scale may follow specific market standards as defined by the local regulator. Fitch publishes these rating scales on local Fitch websites to serve those specific markets. Below are links to websites where local scales and rating definitions can be found:

National Scales and Definitions

Country	Website address for national scale fund credit quality ratings and market risk sensitivity ratings
Brazil	https://www.fitchratings.com/site/brasil
Colombia	https://www.fitchratings.com/site/colombia
Mexico	https://www.fitchratings.com/site/mexico

Source: Fitch Ratings

National Fund Credit Quality Ratings

For National Scale Fund Credit Quality Ratings where funds may invest cross-border[3], the portfolio or fund's credit quality is evaluated on the basis of country specific fund credit quality rating factors to derive the WARF. These country factors are derived by taking the international fund credit quality rating factors and the country's sovereign rating as a base. This base will usually be considered equivalent to 'AAA' on a national scale and issues that carry a lower rating than the sovereign would correspondingly carry lower national scale ratings for purposes of calculating the WARF.

Additionally, when providing Fund Credit Quality Ratings on a national scale — and when Fitch or other globally recognised rating agency ratings are not available for securities within a portfolio — Fitch may consider credit ratings provided by local credit rating agencies in assessing portfolio credit risk. Fitch may adjust such ratings if Fitch considers it to be appropriate taking into consideration a review of the track record and outputs of the agency in question, when possible, and/or taking into account differences in rating methodologies with those of Fitch to ensure a consistent assessment of credit risk across the portfolio. Fitch would expect, however, that the majority of the assets within a portfolio would be rated by a globally recognised rating agency, and that a minority of the portfolio would be subject to this treatment.

Minimum portfolio size: in local markets where, as a result of regulation or standard market practice, fund structures are commonly used as pass-through structures, Fitch will not apply the minimum number of assets required for International Scale Ratings, and instead apply the standard WARF calculations on a look-through basis.

National Scale Market Risk Factors

Fitch adjusts the market-risk-factor ranges at each rating level for national scale ratings to account for factors specific to national markets, such as independent interest-rate movements,

[3] In jurisdictions where funds are domestic only, Fitch transposes the international scale factors directly to the national market in question. For example, in Taiwan Fitch would use the same 'AA' 180-397 day factor as it would use for international scale ratings (0.1); however, the Fund Credit Quality Rating itself is expressed on the Taiwan national rating scale which anchors the 'AAA(twn)' point at the level of the Taiwan sovereign.

the range of investment options in terms of duration, or the stage of capital market development. To make full use of the rating scale in national markets, the ranges for each market risk factor level are tighter than for International Scale ratings. An example is provided below.

Fund Market Risk Sensitivity Ratings

Market risk	Market risk sensitivity rating	Market risk factor (>=, <)
Very low	S1	<0.6
Low	S2	0.6-1.0
Moderate	S3	1.0-2.25
Moderate to high	S4	2.25-3.5
High	S5	3.5-6.0
Very high	S6	>6.0

Source: Fitch Ratings, Market Risk Factor levels may vary by country

Liquidity and Other Risk Factors

The spread risk factors used to calculate the Market Risk Sensitivity Factors already reflect a risk premium for liquidity, credit and technical reasons that are inherent to the individual securities. However, in certain national markets, regulators require the assessment of additional variables not mentioned in the body of this methodology to be included in the analysis of funds. For example, Fitch may be required to address specific aspects of liquidity. In such cases, Fitch complements its analysis with other elements that could impact the overall liquidity profile of a fund, such as investor concentration, fund structure, the percentage of the portfolio invested in short-term assets, among other variables.

This assessment can result an adjustment to the Market Risk Sensitivity Rating to reflect greater market risk sensitivity if Fitch perceives any one element, or a combination of thereof, to be contributing to greater liquidity risk relative to the investment objective of the fund.

As another example, Fitch may be required to review the historical returns of a fund in its overall assessment. In all such cases, Fitch will consider the additional required factors as part of its methodology for ratings in that particular country and make adjustments to the Fund Credit Quality Rating or Fund Market Risk Sensitivity Ratings as appropriate. Fitch will detail these rating adjustments in Fitch's communications with the market, such as rating action commentaries and/or rating reports.

Non-Fixed Income Investments

While the scope of this methodology is to rate debt portfolios, in certain jurisdictions or regulatory frameworks, pension funds are also rated under these criteria. In such cases, the Fund Credit Quality Rating reflects only the portion of the portfolio in debt and excludes other investments. Fitch shall disclose in its communications when this practice is applied. In all other cases, Fitch expects the exposure to such investments that are not debt to be small. Apart from pension funds, in cases where the portion of assets that is not debt exceeds 10%, Fitch will consider not rating the portfolio under this methodology.

Fitch will reflect the small exposure to non-debt securities in the Fund Market Risk Sensitivity Rating by assuming that the proportion of investments that is not debt to be subject to the highest market risk factor range, treating such exposure as 30 year duration, and including this in the overall calculation of the Fund Market Risk Sensitivity Rating.

Appendix B: Example Calculations

Fund Credit Quality Rating

Sample Portfolio 1: Diversified Long-Term Portfolio

Credit quality	Residual maturity	Market value percentage in portfolio (%)	Related rating factor
AAA	> 3 years	30	0.2
AA	> 3 years	30	0.6
A	> 3 years	30	1.6
BBB	> 3 years	10	4.5

Source: Fitch Ratings

WARF: [(30% X 0.2) + (30% X 0.6) + (30% X 1.6) + (10% X 4.5)] = **1.17**

- This falls within the ‘A’ WARF guideline range of 1.0 - 2.6.
- Indicative Fund Credit Quality Rating category: **‘A’.**

Sample Portfolio 2: Diversified Short-Term Portfolio

Credit quality	Residual maturity	Market value percentage in portfolio (%)	Related rating factor
AAA	91 to 397 days	30	0.01
AA	91 to 397 days	30	0.1
A	91 to 397 days	30	0.3
BBB	91 to 397 days	10	1.0

Source: Fitch Ratings

WARF: [(30% X 0.01) + (30% X 0.1) + (30% X 0.3) + (10% X 1.0)] = **0.22**

- This falls within the ‘AAA’ WARF guideline range of 0.0 - 0.3.
- Indicative Fund Credit Quality Rating category: **‘AAA’.**

Fund Market Risk Sensitivity Rating

Market Risk Factor = {Duration + Spread Duration x Spread Risk Factor} x Leverage

Sample Portfolio 3: Diversified, Long-Term Portfolio

Credit quality	Security type	Residual maturity	Market value percentage in portfolio (%)	IR duration	Spread duration	Spread risk factor
A	Fixed rate bonds	3 years	10	3	3	0.3
BBB	Floating rate bonds	4 years 6 months to reset	40	0.5	4	1.0
BBB	Fixed rate bonds	4 years	40	4	4	1.0
BB	Fixed rate bonds	4 years	10	4	4	3.0

Source: Fitch Ratings

Weighted average interest rate duration:
[(10% X 3) + (40% X 0.5) + (40% X 4) + (10% X 4)] = **2.50**

Risk-adjusted weighted average spread duration:
[(10% X 3 X 0.3) + (40% X 4 X 1.0) + (40% X 4 X 1.0) + (10% X 4 X 3.0)] = **4.49**

Market Risk Factor = weighted average interest rate duration + risk adjusted weighted average spread duration.

Market Risk Factor = 2.50 + 4.49 = 6.99

Indicative Fund Market Risk Sensitivity Rating: ‘**S3’ (**Range: **4.0 to 7.5)**

Appendix C: Rating Process Description

The rating process goes through the following stages:

1. Initial contact between the fund manager and Fitch.
2. Initial information request and preliminary review of the requested information.
3. Initial meeting with relevant personnel.
4. Analysis of all information, preparation and distribution of committee package.
5. Rating committee decision and assignment of rating.
6. Communication of the rating decision and rationale to the fund manager.
7. Dissemination of the rating in the case of public ratings.
8. Surveillance and monitoring of the rating, except for point-in-time ratings.

This last stage is characterised by regular portfolio surveillance and communication with the fund manager. Fitch holds a formal meeting with each fund manager periodically, where topics such as long-term plans or strategies are discussed.

Appendix D: Fund Risk Analysis and New Funds or Changes in Investment Objective, and Finite Life Funds

Fitch performs a prospective analysis to ensure that the ratings provide a forward-looking view and exhibit stability over time. As part of this analysis, Fitch considers other risk factors inherent to the fund, specifically how the composition of the fund may vary according to market conditions, taking into account the risk limits stipulated in its prospectus.

Fitch also takes into account the fund's record (if applicable), as well as its investment regime and strategy as discussed with fund management, along with any changes or shifts in these strategies relative to market conditions. These elements inform the possible qualitative adjustments that could apply to the quantitative indicators of the actual or model portfolio. The magnitude of the qualitative adjustments depends on each case.

To ensure that ratings maintain a prospective view, Fitch maintains regular contact with managers to understand the development of the fund's investment strategy, and to gather information on relevant changes in the composition of the portfolio that may affect key rating elements as part of its surveillance process. Fitch will take rating actions to reflect new information when necessary. The Rating Action Commentary will contain all specific considerations applicable to the ratings in each case.

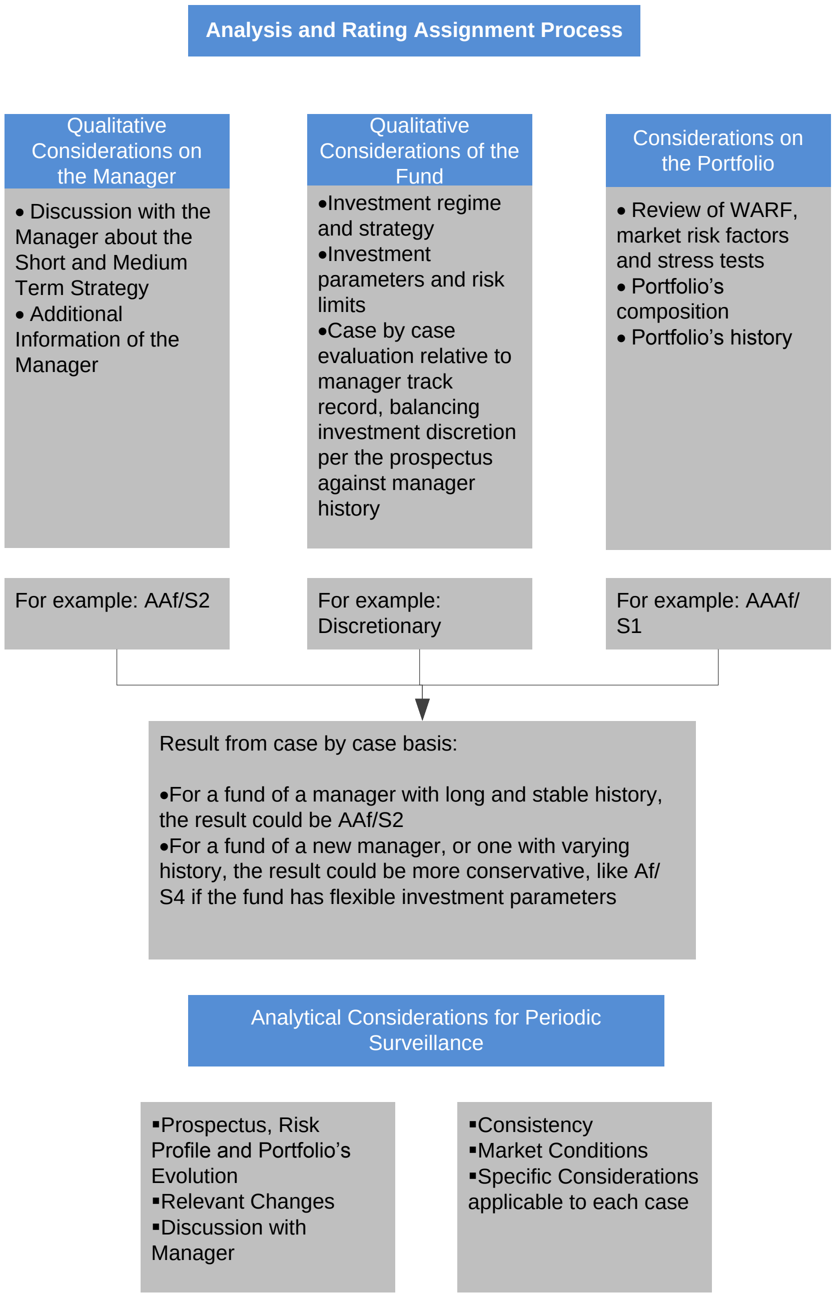
New Funds or Changes in Investment Objectives

An understanding of the fund management's intended strategy is particularly important in the case of new funds or where funds have changed their investment objective. When evaluating such funds Fitch requests:

- A current or model portfolio that reflects the strategy (or new strategy) to be applied
- A draft prospectus
- A discussion with relevant personnel on future strategy, plans, projections and other aspects
- Manager information (for new funds)

In evaluating such funds, Fitch takes into account the current or model portfolio, fund limits and incorporates information learned on the investment strategy from discussions with the fund's management to reflect these elements.

For example, a new fund (or a fund that has widened its investment objective) may have a very high quality and short-term investment portfolio that would otherwise be consistent with 'AAA' WARF or an S1 market risk sensitivity factor. However, if the new investment mandate indicates that the manager has substantial flexibility on the composition of the portfolio, and if fund management indicates to Fitch that it intends to use this flexibility, then the rating assigned to the fund may be adjusted to indicate a higher credit risk and market risk sensitivity than that implied by the current portfolio alone. For example, the fund may be rated AA/S2.



Source: Fitch Ratings

Finite Life Funds

Fitch may be asked to rate funds with defined, finite lives (ie a fund with a scheduled termination date by which point assets will all have matured or been liquidated and proceeds returned to investors). Such funds will typically have ramp-up, stable state and wind-down periods. Conceptually, Fitch can rate such funds with the Bond Fund Rating Criteria; but the fund lifecycle provokes additional analytical considerations, notably relating to concentration risk and potential for WARF volatility during the ramp-up and wind-down periods.

Factors enabling a rating on such a fund would include factors that support the likelihood of achieving the targeted portfolio composition in a smooth and reasonable timeframe, such as committed capital from high quality investors.

Conversely, Fitch will not rate funds with extended ramp up periods or material indication that the target portfolio will not be readily achieved. In rating such a fund at inception, Fitch would take into account a target or model portfolio, as well as the fund's investment policy and risk limits. A case-by-case analysis would be required to determine the appropriate level of qualitative adjustment to account for the execution risk of achieving the targeted portfolio composition, and the concentration risk that the portfolio will experience during the ramp up phase.

Fitch will similarly take into account any execution and concentration risk related to the wind-down phase, which may also include concentration of cash positions with a custodian, and could ultimately create a credit linkage between the fund's rating and the concentrated positions. Fitch will detail additional rating considerations for such funds in the associated rating action commentary.

Non-bond Portfolios

Fitch may be asked to rate portfolios comprising fixed income interests other than the bonds or loans considered in the core rating criteria framework. For example, the agency may be asked to rate portfolios of mortgages (residential or commercial) or portfolios of trade or supply chain receivables. Conceptually, such portfolios may be addressed under the Bond Fund Rating Criteria in conjunction with other rating criteria maintained, for example, by Fitch's applicable Structured Finance rating groups. Any such enquiry will be addressed on a case-by-case basis and will likely be addressed through bespoke rating criteria.

Appendix E: Assigning ratings based on a portfolio including international and nationally rated securities

Criteria for assigning new international scale bond fund ratings to funds that invest in a mixture of securities rated on an international rating scale and securities rated on national rating scales.

Indian Bond Fund Rating Criteria

Bespoke Credit risk Factors: Fitch uses the following bespoke Credit Risk Factors for securities rated 'AAA' on a national scale in India by domestic rating agencies it has identified as meeting consistent minimum rating standards. The bespoke 'AAA' India national scale credit risk factors correspond to Fitch's international scale 'BBB' category' (relating to entities rated BBB+, BBB and BBB−) credit risk factors included in this criteria.

The bespoke credit risk factors are based on an analysis of the transition and default (T&D) performance of Indian national scale ratings compared with Fitch's transition and default studies for international scale ratings. Fitch will periodically review these factors, particularly if the India sovereign rating changes. These factors are expected to be updated if and when the 'BBB' category credit risk factors are updated to ensure consistency with the global criteria. In the event a fund holds securities rated below 'AAA' on a national scale, Fitch will adopt conservative risk factors aligned with the 'BB' category and lower rating factors.

Fund Credit Quality Rating – Bespoke Credit Risk Factors

Rating/residual maturity	0 – 90 days	91 – 397 days	398 days – 3 years	>3 years
AAA (India national scale)	0.6	1.0	2.0	4.5

Source: Fitch Ratings

Consistent Minimum Rating Standards: Fitch uses ratings provided by domestic rating agencies in India that consistently satisfy Fitch's minimum rating standards. These domestic rating agencies have a large and established market presence within India, have practices that are consistent with accepted international standards, and are affiliated with companies that have a global presence and are subject to global regulation.

In addition, T&D rating performance data should support the use of national scale ratings published by eligible rating agencies in India. T&D data will support the use of national ratings when these data demonstrate:1) a ratings distribution that is broadly consistent with international norms and that Fitch does not consider aggressive; 2) ratings stability; and 3) default experience that compares well with Fitch's own experience. Fitch has determined that India Ratings, CRISIL and ICRA meet these standards. Fitch will treat securities rated only by other local rating agencies as 'CCC' for the purpose of its rating analysis.

Country Ceiling: Fitch applies its Country Ceilings Criteria to Indian bond funds rated on the international scale. The relevant Country Ceiling is that of India, irrespective of the fund's domicile, given that these funds are mainly exposed to economic conditions in India. Moreover, the Country Ceiling incorporates foreign-currency transfer and convertibility risk present in bond funds that have share classes denominated in currencies other than the Indian rupee.

Rating Sensitivities Ratings of Indian bond funds assessed using these bespoke criteria face an asymmetric sensitivity to changes in India's Country Ceiling. If the Country Ceiling is lowered, Fitch would expect to downgrade rated Indian bond funds to no higher than the applicable Country Ceiling. Conversely, Fitch would not expect to upgrade the ratings if the Indian Country Ceiling is upgraded, unless changes are warranted to the agency's applicable bespoke credit risk factors.

The ratings are also highly likely to be sensitive to the Indian sovereign rating, both to the extent that changes in the sovereign rating and Country Ceiling are likely to be correlated, and because Indian bond funds may have significant exposure to Indian government bonds.

All other rating sensitivities described in these global criteria also apply.