COMMENTS — CRITERIA — 26 Jul, 2024 | 16:25

# Criteria | Financial Institutions | Fixed-Income Funds: Principal Stability Fund Rating Methodology



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Sector	Financial Institutions, Fund Ratings
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(**Editor's Note:** On July 26, 2024, we released this criteria article to make nonmaterial changes following the publication of " <u>Methodology For Determining Ratings-Based Inputs</u>." See the "Revisions And Updates" section for details.) For information about the initial publication of this article as of July 26, 2024, including key changes made following the publication of " <u>Methodology For Determining Ratings-Based Inputs</u>" on July 26, 2024, the impact on ratings, and superseded criteria, see "

<u>Criteria Released To Clarify Method For Determining Ratings-Based Inputs</u> ."

## SCOPE OF THE CRITERIA

1. The criteria apply globally to principal stability fund ratings.

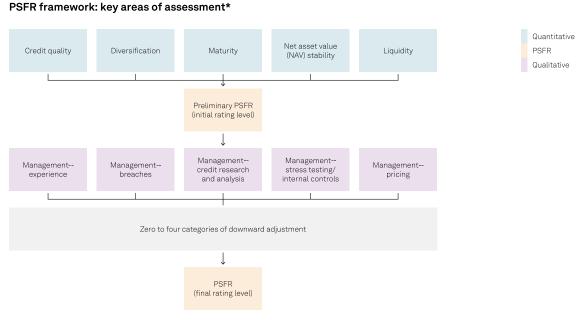
## SUMMARY OF THE CRITERIA

2. A PSFR, commonly referred to as a money market fund rating, is a forward-looking opinion about a fixed-income fund's ability to maintain principal value (i.e., stable net asset value, or "NAV"). PSFRs are typically assigned to funds that seek to maintain stable or, as is prevalent in non-U.S. funds, accumulating NAVs. PSFRs have an "m" suffix (e.g., 'AAAm') to distinguish the principal stability fund rating from S&P Global Ratings' issue or issuer credit ratings (see the Appendix for our rating definitions).

**3.** The criteria consist of two main sections titled Evaluating Funds and Evaluating Security-Specific Risks and four supplemental sections titled, Master-Feeder Funds, Bifurcation, Parental Support, and Negative Yields. The Evaluating Funds and Evaluating Security-Specific Risks sections are further divided into subsections. In the Evaluating Funds section, we describe quantitative metrics, summarized in table 1 and in more depth in tables 2-10, plus our assessment of Evaluating Security-Specific Risks to establish the preliminary PSFR (step one).

**4.** The final PSFR is determined by lowering it from, or keeping it the same as, the level of the preliminary PSFR based on the impact of our qualitative assessments described in the management section. Subsections of the master-feeder funds, bifurcation (i.e., when a fund moves a distressed asset from one portfolio to another), parental support, and negative yields sections are applied when relevant and may influence the final PSFR. The qualitative assessments cannot lift a fund rating above the preliminary PSFR.

#### Chart 1



\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

**5.** Market losses arising from negative yields because of investment in low credit risk, short duration securities with negative coupons would not solely result in lowering the final or preliminary PSFR when the fund operating documents permit loss of principal reflected in variable NAV (including accumulating NAV funds) or stable NAV funds with share class reductions or similar mechanisms.

**6.** These criteria consider the sources of risk in a managed fund's portfolio and investment strategy and assess the impact that these risks could have on a fund's ability to maintain a stable or accumulating NAV. These risks include credit quality; investment maturity; liquidity; portfolio diversification, index, and spread risk; management; and security-specific risks. Each rating level reflects our view of the likelihood of a fund's ability to maintain a stable 1.

# METHODOLOGY

7. The criteria consist of two main sections titled Evaluating Funds (covering our assessments of credit quality; maturity; liquidity; diversification, index, and spread risk; and management) and Evaluating Security-Specific Risks (covering portfolio risks such as callable, convertibles, collateralized certificates of deposits [CDs], deposits with foreign bank branches, extendible investments, interest rate swaps, other funds, repurchase agreements, reverse repurchase agreements/securities lending, and windows variable-rate demand bonds/X-Tenders).

8. Four supplemental sections titled Master-Feeder Funds, Bifurcation, Parental Support, and Negative Yields complete the criteria. The masterfeeder funds section clarifies how these criteria apply to master-feeder funds. The bifurcation section covers the impact on PSFRs when and if bifurcation occurs and an impaired asset is placed in a separate portfolio. The parental support section describes the relationships between fund, ownership, and fund management. Typically, managers and fund complexes (encompassing custodial or administrative or trustee duties) provide operational support to funds and that support is considered as part of the management assessment. Funds typically do not benefit from financial support from parents, and application of "
Group Rating Methodology" is not part of the framework. **9.** Throughout these criteria, when we refer to the "rating" on an asset or issuer, this generally means:

The public global-scale unqualified rating assigned to it by S&P
 Global Ratings;

□ If there's no such rating, the public global-scale unqualified rating assigned to it by another credit rating agency (CRA), provided that--in accordance with our "

Methodology For Determining Ratings-Based Inputs" (see Related Criteria)--the CRA rating meets the conditions for use in our analysis of primary rating drivers, as well those laid out in "Additional Considerations For Liquidity Assessments," and provided we haven't identified the exposures as substantial rating drivers (as defined in the ratings-based inputs criteria).

**10.** For exposures that we determine are substantial--for example, concentration eligible, diversification exceptions, and high bank concentration--"ratings" refer only to ratings assigned by S&P Global Ratings.

**11.** This definition applies to issue ratings, guarantor or counterparty or issuer credit ratings (ICRs), as the case may be, as described more fully in the relevant sections of these criteria. Regarding ICRs, we typically mean public foreign-currency ICRs (or its equivalent for other CRAs), but when different foreign- and local-currency ICRs are assigned to an issuer, "rating" refers to the relevant rating depending on the currency denomination of the assets held by the fund. (Please see the Appendix for a glossary of additional terms that appear in these criteria.)

**12.** In addition, we expect structured finance securities to carry at least two ratings (including when they are rated by S&P Global Ratings, if applicable), and we use the lower of such ratings when determining the applicable rating input unless the asset has less than 30 days until it matures, in which case one rating is sufficient.

**13.** Whenever CRA ratings are incorporated into our analysis, we use their S&P Global Ratings equivalent rating input as informed by regulatory mappings (according to our ratings-based input criteria) for the purpose of applying the tables and the rating thresholds referenced within these criteria. If more than one CRA rating may be applied as described in these criteria, we apply the lowest resulting rating input. And where we refer to "CreditWatch" in these criteria, this equally applies to equivalent designations from other CRAs if ratings from other agencies are being used in our analysis.

## **1. Evaluating Funds**

**14.** The first step to determine a PSFR is to apply the quantitative metrics. These are summarized in table 1 and aim to assess NAV stability by addressing credit quality, maturity, liquidity, diversification, and index and spread risk. Further explanations are found in subsections A through E of section 1, Evaluating Funds, in conjunction with subsections A through I of section 2, Evaluating Security-Specific Risks. Application of these establishes the preliminary PSFR.

**15.** In the second step, subsection F (Management) of section 1, Evaluating Funds, is applied and typically determines the final PSFR, which cannot be higher (better) than the preliminary PSFR. Assessments of sections 3-6 (Master-Feeder Funds, Bifurcation, Parental Support, and Negative Yields) are applied when relevant and may influence the final PSFR. The final PSFR is typically equal to the preliminary PSFR, but it may be lower (worse) than the preliminary PSFR due to our management assessment.

### **Rating caps**

**16.** The preliminary PSFR is capped at the highest rating indicated by the quantitative metrics in table 1. We apply a weak link approach, meaning that at any point in time a fund needs to meet all quantitative metrics criteria under the categories of credit quality, maturity, and diversification at a given rating level to receive that preliminary PSFR, barring applicable cure periods and assuming the rating category 'Dm' does not apply. Table 1 summarizes the overall framework. Table 2 addresses asset credit quality, table 6 addresses maturity, table 9 covers diversification, and table 10 covers NAV ranges.

**17.** Funds that hold any "higher-risk investments" are rated at most 'BBm', barring applicable cure periods. Investments that have any of the following characteristics are "higher-risk investments":

- Investments that S&P Global Ratings does not consider to be the equivalent of 'A-1' or higher (see paragraphs 30-48), as well as securities that are rated below 'A-1' (short-term) or below 'A' (long-term, absent a short-term rating), except certain collateralized investments. (See the definition of "rating" above as well as "Investments not rated by S&P Global Ratings but rated by other Credit Rating Agencies" in section 1.e below.)
- Shares of money market funds that are not rated by S&P Global Ratings, as these don't meet the conditions for use of CRA ratings in our analysis of primary rating drivers, as required under our definition of "rating" above.
- Investments that result in issuer concentrations that exceed stated percentages for specific rating categories (see "Diversification" and "Other funds").
- Newly purchased investments rated 'A-1' or lower, that are on CreditWatch with negative implications, and that mature in more than one month.
- Investments with maturity dates in excess of stated maximums for specific rating categories (see "Individual security final maturity" and "VRN/FRN Final Maturities").
- Illiquid/limited liquidity investments that comprise more than 10% of fund assets (see the 10% limit for assets with limited liquidity section).
- Interest rate swaps that comprise more than 10% of fund assets (see "Interest Rate Swaps").
- Investments with maturity extension features that the investor does not control (see "Extendible Investments").
- Investments with high price volatility (see "Investments with high price volatility" and "Higher-Risk VRNs/FRNs").
- Securities with unhedged currency risk (see the 10% limit for assets with limited liquidity section).

• A 10-business-day cure period applies to "higher-risk investments."

**18.** Unless otherwise stated, "day" designates a calendar day. We refer to business days when a manager's ability to take action is within a narrowly defined number of days (typically within one month and in particular related to table 1).

**19.** Some sections of table 1 have been reproduced in each relevant section for ease of use. In the tables, high bank concentration (HBC) refers to metrics that apply when a fund elects to concentrate investment in highly rated bank issuers in excess of the standard issuer concentration metrics described in row 13 of table 1. Although maximum issuer concentrations are addressed in table 1, there are permutations of combinations possible that are not easily reflected in a table and are more robustly described in the "Diversification," in section 1. In row 1 of table 1, "negative deviation" refers to the potential fall in NAV below 1.000 for stable NAV funds and a similar loss in principal for variable (including accumulating) NAV funds.

PSFR quantitative metrics					
	AAAm	AAm	Am	BBBm	Cure period (business days)
1. NAV (per share) negative deviation thresholds or lowest NAV consistent with rating (paragraph 109)	-0.25% or 0.9975	-0.3% or 0.997	-0.35% or 0.9965	-0.4% or 0.996	5

Table 1

Credit quality (%)

2. Minimum proportion of the fund's assets that is represented by the sum of (a) 'A-1+' rated investments (any maturity) and of (b) 'A-1' rated investments maturing within five business days (paragraphs 26-28)	50	20	0	0	10
3. Maximum proportion of the fund's assets that is represented by the sum of (a) 'A-1' rated investments maturing in more than five business days and of (b) 'A-2' rated counterparties utilized for collateralized repo investments maturing overnight (paragraphs 26- 28)	50	80	100	100	10
4. HBC: Minimum proportion of the fund's assets that is represented by the sum of (a) 'A-1+' rated investments and of (b) 'A-1' rated investments maturing within five business days (applied when 'A-1+' rated bank exposure exceeds "per issuer" metric [see table 1 row 13]) (paragraphs 72-73)	67	50	40	25	10
5. HBC: Maximum proportion of the fund's assets that is represented by the sum of (a) 'A-1' rated investments maturing in more than five business days and of (b) 'A-2' rated counterparties utilized for collateralized repo investments maturing overnight (paragraphs 72- 73)	33	50	60	75	10
6. Maximum exposure to escrow accounts not rated by S&P Global Ratings CRAs (see paragraphs 42- 43)	25	33	40	50	10
7. Maximum aggregate exposure to investments not rated by S&P Global Ratings¶ (see paragraphs 35-38)	15	20	25	30	10

8. Maximum aggregate exposure to credit-enhanced variable-rate demand obligations (VRDOs) not rated by S&P Global Ratings (see paragraphs 40-41). This limit is a subset of the row 6 aggregate.	10	15	20	25	10
Maturity (days)					
9. Maximum WAM(R)** (see paragraphs 49-50, 53)	60	70	80	90	20
10. Maximum WAM(F)**¶¶ (see paragraphs 49-50, 54-59)	90	100	110	120	20
11. Maximum final maturity per fixed-rate investment, nonsovereign government floating-rate investment, and sovereign floating- rate investments rated below 'AA-' (see paragraph 51)	397	397	397	397	20
12. Maximum final maturity per sovereign government (including "concentration eligible" sovereign government related/guaranteed) floating-rate security rated 'AA-' or higher (see paragraph 51 and table 6)	762	1,127	1,492	1,857	20
Diversification (%)					
13. Maximum per issuer (including debt guaranteed by the same issuer) (see paragraphs 69-71, 77-78) except for the items listed in Diversification exceptions	5	7.5	10	15	20
Diversification exceptions (%)					
14. Maximum concentration per sovereign entity (i.e., national government) rated 'AA' or higher (see paragraphs 79-81)	100	100	100	100	N/A

15. Maximum concentration per sovereign entity rated 'AA-' (see paragraphs 79-81)	50	50	67	75	20
16. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in one business day (see paragraphs 79-81)	25	33	40	50	20
17. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures between two and five business days (see paragraphs 79-81)	10	15	20	25	20
18. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in more than five business days (see paragraphs 79-81)	5	10	15	20	20
19. Maximum concentration per bank rated 'A-1', 'A+', or 'A' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 77-78)	10	15	20	25	20
20. Maximum concentration per bank rated 'AA-' or higher or 'A-1+' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 77-78)	15	20	25	30	20
High bank concentration (%)					

21. HBC: maximum concentration to any bank group rated 'AA-' or higher or 'A-1+', of which investments of 93–397 days cannot exceed the percentage in the parentheses next to the limit. For example: 25 (10) means of 25%, only 10% could be with maturities of 93-397 days. These limits are subject to additional limits described in "Diversification." The maximum amount excludes overnight deposits. (see paragraphs 72-74)	25 (10)	30 (10)	35 (10)	45 (15)	20
22. HBC: maximum fund aggregate exposure to bank groups rated 'AA-' or higher or 'A-1+' for uncollateralized exposure. Applied when exposures are greater than the "per issuer" limits, (see table 1, row 13). The test excludes overnight 'A- 1+' bank deposits and overnight 'A- 1+' collateralized (repo) investments (see paragraphs 72-74)	60	70	80	100	20
Group exposure (%)					
23. Maximum exposure per group, unless the higher HBC per group limit applies (see table 1, row 21). The test excludes overnight deposits and overnight collateralized (repo) investments. (see paragraph 75)	15	17.5	20	25	20
Collateralized exposure (%)					
24. Tiered maximums for investments that are fully (100%) collateralized or overcollateralized (more than 100%) (see paragraphs 114-117, table 11)	See charts 3-5 for details	See charts 3-5 for details	See charts 3-5 for details	See charts 3-5 for details	20

GRE exposure (%)

25. Maximum exposure per "concentration eligible" sovereign government-related/guaranteed entity rated 'AA-' or higher§§ (see paragraph 80)	33	50	67	75	20
PSFR exposure (%)					
26. Maximum exposure to another Standard & Poor's rated PSFR (see paragraphs 124-125)	10	15	20	25	20

Note: Funds holding any higher-risk investments are rated 'BBm'. ¶Exposures to securities rated below 'A-1' are "higher-risk investments." This limit does not apply to securities that possess a direct pay letter of credit rated 'A-1+' or 'A-1'. \*\*The maximum WAM(R) and WAM(F) limits may be reduced for funds with certain characteristics (such as limited operating history or start-up funds, small asset size, a concentrated shareholder base, or a new shareholder base with uncertain liquidity needs). ¶¶May be adjusted upward by 30 days if invested only in sovereign government (including GREs considered "concentration eligible"/guaranteed entities) rated 'AA-' or higher. If a fund invests in a combination of sovereign government floaters rated 'AA-' or higher and nongovernment floating-rate instruments (or sovereigns rated below 'AA-'), the maximum is based on the weighted average of exposures to each type of floater. §§"Concentration eligible" government-related entity (GRE) (see glossary) or government-guaranteed investments rated 'AA' or above with final maturities of one month or less are excluded from these limits. "Concentration eligible" GRE 'AA-' rated exposures maturing in less than one month have the same limit as 'AA-' sovereigns (table 1, row 15). N.A.--Not applicable.

### Cure periods and management assessment

**20.** Primarily in table 1 but throughout sections 1 and 2, we describe portfolio thresholds we believe enhance NAV stability. Each section of this article describes cure periods that apply, when a fund breaches any metric or threshold, before the rating is lowered. The cure period related to a metric applies only to that specific metric or threshold and to no others and typically begins on the date the failure to maintain a metric occurs (i.e., portfolio date). Cure periods are intended to limit the possibility of a fund's NAV failing to remain within the ranges outlined in

row 1 of table 1 for each rating category. If multiple metrics are in breach at the same time, the rating could become the lowest of the ones suggested by the breaches. In some cases, multiple breaches at the same time, if uncured, could lead to a PSFR lower than the lowest one implied by the metric that would be supported if no cure is achieved. For example, if two metrics are uncured, and one suggests a rating of 'AAm' and the other a rating of 'Am', the rating will move to 'Am'. In another example, if the same two metrics are uncured, and we believe management is unlikely to manage even to thresholds for an 'Am' rating, we will lower the rating to 'BBBm' or 'BBm'.

**21.** Typically, a 10- or 20-business-day cure period applies for a breach of the table 1 thresholds as long as the fund's marked-to-market NAV does not drop below NAV ranges for each preliminary PSFR category (see table 10). NAV stability has the shortest cure period (five business days) for which failure to cure would lead automatically to a downgrade to the category indicated by the NAV ranges in table 1. Failure to maintain credit quality metrics typically leads automatically to a downgrade if uncured after 10 business days. Failure to maintain diversification or maturity metrics typically leads automatically to a downgrade if uncured after 20 business days.

22. Breaches of portfolio metrics can imply weak management. We differentiate "active" breaches of criteria and "passive" breaches of criteria. Active breaches occur when a manager makes a portfolio decision that, irrespective of any other portfolio developments, directly results in a metric in table 1 that no longer supports the PSFR. For example, purchasing an asset that is inconsistent with the metrics in table 1 that apply to the fund at the current rating is an active breach. Management action that is not active is passive. A passive action also results in a metric that no longer supports the PSFR because the fund breaches the guidelines in table 1 due to externally initiated

developments. For example, passive breaches may occur due to shareholder redemptions causing asset liquidations, which then cause a breach of the limits defined in table 1 or downgrade of an asset or counterparty, which results in a breach of the limits defined in table 1. Three active management breaches over a rolling 12-month period will typically lead to a downgrade by one, and possibly several, rating categories. This reflects our view that management would not be able to effectively maintain internal controls as described under "Internal controls," in section 1.

23. Even passive breaches can change our view of management because they indicate management's inability to effectively maintain internal controls with regard to portfolio management. Consistent passive breaches to maintain quantitative metrics, when of sufficient magnitude or frequency over a 12-month period, result in a PSFR lowered by one or more categories because we viewed it as management weakness as described in "Internal controls." For example, if a 'AAAm' rated fund experiences more than five occurrences of exceeding the 60-calendarday maximum weighted average maturity to reset, or WAM(R), by several days because of unexpected shareholder redemptions, without accounting for any other factor, the preliminary PSFR is typically lowered to 'AAm'. Another example is if a 'AAAm' rated fund experiences three occurrences of exceeding the 60-calendar-day maximum WAM(R) by more than 15 calendar days because of unexpected shareholder redemptions, without accounting for any other factor, the preliminary PSFR is typically lowered to 'AAm'. This is representative of a significant, yet passive, breach. Once a rating has been lowered due to failure to maintain the quantitative metrics of table 1 or due to qualitative weakness in the management assessment, a PSFR is unlikely to be raised until management has operated in compliance with criteria for a minimum of six months and typically longer.

# A. Credit Quality

24. We consider credit quality to be an important contributor to NAV stability. We view higher-rated assets as reflective of higher price stability, which is the primary focus of PSFRs. A preliminary PSFR can be no higher than the lowest category associated with the metrics enumerated in table 2. Each row of the table specifies a metric, and each column, before the last one, corresponds to a PSFR category. Each cell indicates the minimum credit quality or maximum level of portfolio holdings that a fund can have to receive the preliminary PSFR indicated at the top of the column.

Table 2

	AAAm	AAm	Am	BBBm	Cure period (business days)
Credit quality (%)					
2. Minimum proportion of the fund's assets that is represented by the sum of (a) 'A-1+' rated investments (any maturity) and of (b) 'A-1' rated investments maturing within five business days (paragraphs 26-28)	50	20	0	0	10
3. Maximum proportion of the fund's assets that is represented by the sum of (a) 'A-1' rated investments maturing in more than five business days and of (b) 'A-2' rated counterparties utilized for collateralized repo investments maturing overnight (paragraphs 26-28)	50	80	100	100	10

Portfolio credit quality metrics and thresholds for PSFR categories

4. HBC: Minimum proportion of the fund's assets that is represented by the sum of (a) 'A-1+' rated investments and of (b) 'A-1' rated investments maturing within five business days (applied when 'A-1+' rated bank exposure exceeds "per issuer" metric	67	50	40	25	10
[see table 1 row 13]) (paragraphs 72-73)					
5. HBC: Maximum proportion of the fund's assets that is represented by the sum of (a) 'A-1' rated investments maturing in more than five business days and of (b) 'A-2' rated counterparties utilized for collateralized repo investments maturing overnight (paragraphs 72-73)	33	50	60	75	10
6. Maximum exposure to escrow accounts not rated by S&P Global Ratings (see paragraphs 42-43)	25	33	40	50	10
7. Maximum aggregate exposure to investments not rated by S&P Global Ratings¶ (see paragraphs 35-38)	15	20	25	30	10
8. Maximum aggregate exposure to credit- enhanced variable-rate demand obligations (VRDOs) not rated by S&P Global Ratings (see paragraphs 40-41). This limit is a subset	10	15	20	25	10

of the row 6 aggregate.

Note: Funds holding any higher-risk investments are rated 'BBm'. ¶Exposures to securities rated below 'A-1' are "higher-risk investments." This limit does not apply to securities that possess a direct pay letter of credit rated 'A-1+' or 'A-1' by S&P Global Ratings.

**25.** The levels in table 2 are based on a combined analysis of the yield spread movements resulting from changes in the credit quality of investments and the data derived from our historical ratings performance study. For details, see "

2010 Annual Global Corporate Default Study And Rating Transitions,"

### published March 30, 2011, and "

### <u>Global Short-Term Ratings Performance And Default Analysis (1981-2009)</u> ," May 20, 2010.

26. The analysis of a fund's assets' overall credit quality includes the risks associated with the quality, type, and diversification of the investments in the fund's underlying portfolio. A fund is rated 'BBm' unless investments carry a short-term rating of 'A-1+' or 'A-1' (or SP-1+ or SP-1), or unless S&P Global Ratings considers all of the investments to be of credit quality equivalent to these levels. For example, U.S. Treasury bills are not rated, but we consider their credit quality as equivalent to the ICR on the U.S. government. An exception is for fully or overcollateralized repurchase agreements where the counterparty carries a short-term rating of 'A-2'. When applying table 2, if an investment has a long-term rating of 'AA-' or higher, with an 'A-2' short-term rating (which is possible, for example, for U.S. municipal securities), the rating for purposes of our credit quality assessment is 'A-2'. Table 2 lists the credit quality subfactors we apply to evaluate principal stability funds. We apply ratings derived from jointsupport criteria when relevant if the jointly supporting entities/issues carry a rating assigned by S&P Global Ratings (see "

# Methodology And Assumptions For Rating Jointly Supported Financial Obligations

"). We typically do not have to address minimal amounts of cash on deposits at low or not rated custodians because it is operational in nature and funds are typically predominantly invested. However, if cash amounts exceed 25 basis points of fund NAV, creditworthiness of the custodian is considered and paragraphs 46-48 would apply.

**27.** The 'A-1+' percentage minimums include investments rated 'A-1' that mature in five business days or less because the historical default rates of 'A-1' paper maturing in five business days or less are similar to default rates of 'A-1+' rated issuers. The 'A-1' percentage maximum includes fully

or overcollateralized repo investments backed by traditional collateral (as defined in paragraph 132) with counterparties rated 'A-2' that mature overnight.

28. New purchases of assets rated 'A-1' (or equivalent) on CreditWatch with negative implications and that mature in more than one month are "higher-risk investments." New purchases of assets rated 'A-1+' (or equivalent) on CreditWatch with negative implications are not "higherrisk investments." New purchases of assets rated 'A-1' (or equivalent) on CreditWatch with negative implications and that mature in one month or less are not "higher-risk investments." Existing fund holdings rated 'A-1' or 'A-1+' (or equivalent) that are placed on CreditWatch with negative implications are not "higher-risk investments." We make this differentiation for new investments with longer maturities because CreditWatch already signals that the issuer's credit quality may be changing. Hence the criteria limit the potential risk associated with new investment. Bank ICRs typically determine, subject to other custodial considerations, the credit quality of uninvested cash deposits with the custodian. If uninvested cash deposits with a given bank constitute a significant portion of the funds' assets, we would only use bank ICRs assigned by S&P Global Ratings to the extent we believe this results in a substantial driver of our rating. (See the Appendix for more on assumptions with regard to credit quality.)

### 1. Determining credit quality

**29.** The criteria refer to long- and short-term ratings frequently when describing credit quality. In this section, we describe how we determine rating equivalents when S&P Global Ratings has not assigned a short-term rating to an investment.

### a. Investments with only long-term ratings

**30.** For purposes of applying table 2, an investment that has only a long-term rating from S&P Global Ratings is treated as having the short-term rating specified in the rating equivalent short-term rating column of table 3.

Table 3

Rating equivalent short-term ratings from long-term ratings for the purposes of PSFR

Long-term rating	Rating equivalent short-term rating
'AAA' through 'AA-'	'A-1+'
'A+' or 'A'	'A-1'
'A-' or lower	"Higher-risk investment" (see paragraph 17)

Individual areas of criteria such as for corporate ratings or U.S. public finance ratings may have differing long-term and short-term ratings relationships, some of which may be influenced by liquidity descriptors. Table 3 is not intended to reflect each of those criteria individually, but rather to reflect an approach to limit imputed ratings in aggregate. Table 3 reflects imputed short-term ratings. Long-term rating to short-term rating relationships for issues not rated but issued by rated issuers are applied as described in "Methodology For Linking Short-Term And Long-Term Ratings," April 7, 2017; and "Commercial Paper, VRDO, And Self-Liquidity," published July 3, 2007, for U.S. public finance issuers.

### **b. Guaranteed investments**

**31.** We view the credit quality of a senior guaranteed investment not rated by S&P Global Ratings as equal with the ICR on the guarantor if the guarantee meets the characteristics outlined in "<u>Guarantee Criteria</u>" or " <u>Methodology For Analyzing Letter Of Credit And Bank Liquidity-Supported</u> <u>Transactions</u>

"Guaranteed investments that do not conform to those criteria are "higher-risk investments."

# c. Obligations not rated by S&P Global Ratings but issued by entities rated by S&P Global Ratings

**32.** For purposes of applying table 2 and table 3, the S&P Global Ratings ICR or S&P Global Ratings underlying rating (SPUR) on the obligor determines the creditworthiness of senior unsecured debt obligations. For example, if an issue is not rated by S&P Global Ratings and is a senior debt obligation of an issuer rated 'A+' by S&P Global Ratings, the security is treated as having a rating of 'A-1'. If S&P Global Ratings does not provide an ICR or SPUR on the issuer, then the senior unsecured or subordinated debt issue that is not rated by S&P Global Ratings is a "higher-risk investment" (except as described in section e below). Subordinated debt not rated but issued from an issuer rated by S&P Global Ratings is a "higher-risk investment."

# d. Credit quality and diversification of variable-rate demand obligations subject to credit substitution

**33.** Variable-rate demand obligations (VRDOs) may have credit or liquidity risk supported by various structures: letters of credit (LOCs), guarantees, standby bond purchase agreements (SBPAs), or tender option bonds (TOBs). S&P Global Ratings recognizes that, generally, the municipal obligor is ultimately responsible for the full and timely payment of principal and interest payments. In instances where the obligation is subject to credit substitution, the credit risk to a fund is associated with the performance of the credit substitution provider (e.g., direct pay LOCs and guarantees). Where the structure has more than one credit substitution provider (e.g., confirming LOC or standby LOC), the credit risk to the fund is based on the performance of the ultimate payment source. Moreover, VRDOs such as TOBs and SBPAs may have a dual payment source-credit from an obligor and the liquidity obligation based on credit substitution in the form of a liquidity facility (see table 4).

**34.** In the event the payment obligation is based on credit substitution, the criteria assume the credit quality of and diversification for the underlying issue are associated with the credit substitution provider due to the short-term nature of the issue, the structure's correlation of short-term to long-term ratings, and the reflection of credit risk to principal stability of the rated fund. The maximum diversification of the credit substitution provider, which generally is a bank, will be subject to the group diversification limits.

# e. Investments not rated by S&P Global Ratings but rated by other CRAs

**35.** Where we may use CRA ratings, as described in these criteria, the below provides details as to the determination of the rating input we consider in our rating analysis: If the CRA rating is long-term, and the investment doesn't have a public CRA short-term rating, we map the CRA long-term CRA rating to our long-term rating, as informed by relevant regulatory mappings (as described in the ratings-based input criteria). We then apply this mapped long-term rating to a short-term rating by applying table 3.

**36.** Conversely, if an investment carries only a short-term CRA rating, the rating input is the lowest to which the CRA short-term rating can be mapped according to relevant regulatory mapping tables unless described differently in chart 2, or unless we are provided with additional information about that investment's creditworthiness that enables us to determine a different equivalent short-term rating equivalent. For example, if an asset-backed commercial paper (ABCP) investment only carries a short-term rating from another CRA, but we are provided with information that demonstrates that this ABCP's creditworthiness is fully supported by a liquidity provider that carries a long-term ICR, we may apply the corresponding short-term rating input.

**37.** If we need to map between long- and short-term ratings of another CRA, we apply publicly available mapping tables of the CRA. If the mapping relationship results in multiple possible relationships, we apply the lowest rating possible under the mapping unless we have reason to assume differently or unless otherwise indicated in these criteria. In "Credit Quality," we refer to 'A-1+'. For S&P Global Ratings, this refers to long-term ratings between 'AAA' and 'AA-' and certain issuers rated 'A+'. If another CRA's highest short-term rating maps to a broader range of long-term ratings, we will assume it comparable to A-1+ when the CRA has assigned a publicly available long-term rating that maps to our long-term rating of 'AA-' or higher. For example, in the absence of a publicly available short-term rating from a CRA, we would assume 'A-1' as the rating input if the CRA long-term rating maps to our 'A+' (see Table 3).

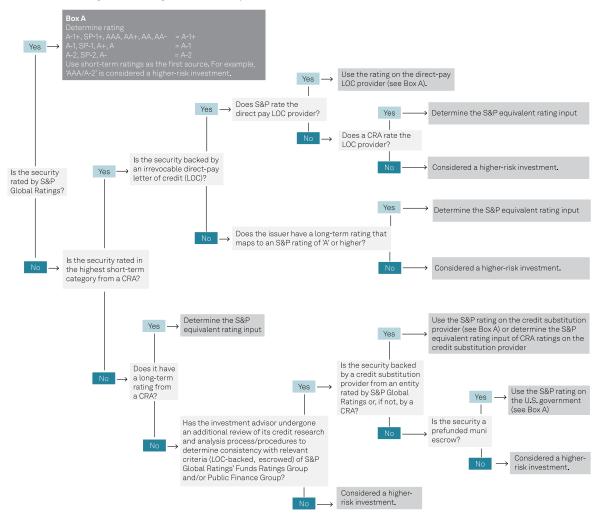
**38.** As shown in row 7 of tables 1 and 2, the total proportion of securities not rated by S&P Global Ratings is subject to specific limits for each PSFR category. These limits do not apply to securities that possess a direct pay LOC rated 'A-1+' or 'A-1' by S&P Global Ratings. Any security with an imputed short-term rating below 'A-1' is a "higher-risk investment." Should a CRA-rated investment be added to the fund that would result in an amount (asset value) of the fund with rating inputs exceeding the limits described in these criteria, or if there's a rating from another CRA that doesn't meet the conditions described in our methodology for determining ratings-based inputs for use in primary rating drivers, with additional considerations for liquidity, we may rely on sufficient information being provided by the collateral manager within a maximum of 30 days of the asset's inclusion in the portfolio to produce a credit estimate. Pending the determination of such credit estimate, the rating input would be determined by the investment manager in its reasonable credit judgement until our credit estimate confirms the asset's eligibility and compliance with the criteria. If our credit estimate

fails to confirm such compliance, or if we're not provided with sufficient information within the timeframe above, the asset is deemed to be a higher-risk investment.

**39.** In addition, securities, supported by bond insurance, that neither S&P Global Ratings nor other CRAs (as described in paragraphs 32-37) rate are "higher-risk investments," unless the SPUR of the issuer is rated 'A-1' or higher by S&P Global Ratings or another CRA (as described in paragraphs 32-37) rates the underlying issuer at least 'A-1', or we are provided with sufficient information to assess that the credit quality of the underlying issuer whose issue benefits from the bond insurance is at least equivalent to 'A-1'.

#### Chart 2

#### S&P Global Ratings fund ratings--U.S. security assessment flowchart\*



\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." §Newly guaranteed investments may have more stringent diversification guidelines. †Diversification of issues will be reviewed. Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

#### Table 4

U.S. municipals				
Instrument	Credit responsibility	Liquidity responsibility	PSFR assessment	
Direct pay LOC	LOC provider	LOC provider	Credit quality based on the rating of the credit substitution (LOC) provider. Diversification: Apply exposure to LOC provider, as per group limits.	

Confirming LOC	CLOC provider	CLOC provider	Credit quality based on the rating of the credit substitution (CLOC) provider. Diversification: Apply exposure to CLOC provider as per group limits.
Standby LOC	Obligor + LOC provider	LOC provider	Credit quality based on the rating of the credit substitution (LOC) provider. Diversification: Apply exposure to LOC provider as per group limits.
Guaranty	Guarantor	Guarantor	Credit quality based on the rating of the credit substitution (guarantor) provider. Diversification: Apply exposure to guarantor as per group limits.
TOBs	Obligor	Liquidity facility	Credit quality based on the rating of the credit substitution provider (liquidity facility). Diversification: Apply exposure to liquidity facility provider as per group limits.
SBPAs	Obligor	Liquidity facility	Credit quality based on the rating of the credit substitution provider (liquidity facility). Diversification: Apply exposure to liquidity facility provider as per group limits.

LOC--Letters of credit. CLOC--Confirming letter of credit. SBPAs--Standby bond purchase agreements. TOB--Tender option bonds.

### f. Credit-enhanced VRDOs and escrow-secured municipal bonds not rated by S&P Global Ratings or another CRA

### (1) Credit-enhanced VRDOs

**40.** For purposes of applying chart 2, a municipal VRDO not rated by S&P Global Ratings or another CRA is a "higher-risk investment," even if it includes bank credit enhancement (e.g., direct pay LOC). However, these municipal VRDOs are treated as carrying the rating on the credit enhancement provider if both of the following statements are true:

- The credit enhancement provider is rated 'A-1' or 'A-1+' by S&P Global Ratings, or we view the credit enhancement provider as 'A-1' or 'A-1+' if rated by another CRA, and
- The fund's manager applies credit research and analysis policies for LOC-backed VRDOs that are consistent with our methodology in "

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."

**41.** In addition, investments supported by bond insurance and a liquidity facility are "higher-risk investments." The total proportion of not rated credit-enhanced VRDOs is subject to specific limits for each preliminary PSFR category.

## (2) Bonds secured by escrows

**42.** Escrowed municipal bonds not rated by S&P Global Ratings or by another CRA whose ratings are "higher-risk investments" unless the fund manager's independent credit analysis and relevant bond or legal documents are consistent with S&P Global Ratings' defeasance criteria. For more details, please refer to " <u>Methodology And Assumptions: Assigning Ratings To Bonds In The U.S.</u>

### Based On Escrowed Collateral

"

**43.** The total proportion of municipal bonds not rated by S&P Global Ratings, or by CRAs whose ratings but secured by an escrow account is subject to specific limits for each preliminary PSFR category (see table 2, row 6).

### 2. Effect of investment downgrades and withdrawals

**44.** Except if otherwise stated in this paragraph, a 10-business-day cure period applies for a breach of the table 2 thresholds as long as the fund's marked-to-market NAV does not drop below NAV ranges for each preliminary PSFR category (see table 10). As we've noted, the cure period related to a breach of any specific metric or threshold applies only to that specific metric or threshold (see paragraphs 21-23 and table 1). However:

- When a rating on a sovereign issuer is lowered to 'AA-' from 'AA' or higher, a cure period of 90 calendar days applies to reduce exposures to the listed diversification limits.
- In the event that the rating on a sovereign issuer is lowered to 'A+' or 'A' from 'AA-' or higher, a 60-calendar-day cure period applies to reduce exposures to the listed diversification limits.
- If the rating on a sovereign issuer is lowered below 'A', we apply table 3 and assume the short-term equivalent is below 'A-1'.
- If S&P Global Ratings withdraws its rating on a 'AA-' or higher rated government-related entity (GRE) that we define as "concentration eligible" for the purposes of these criteria (see Glossary) up to and including the withdrawal date, we apply our last rating for a cure period of 90 calendar days to any already existing portfolio investment in that GRE. After the cure period of 90 calendar days, we consider such issuer not rated and a PSFR would be lowered if the holding remained in the portfolio.
- New investments in the issuer whose ratings were withdrawn are not rated and thus "higher risk" for purposes of determining their rating impact. The withdrawal of the rating signifies higher uncertainty than before the withdrawal. While the GRE likelihood of support category status at the time of withdrawal supports stability of NAV over the short term, uncertainty exists with regard to what S&P Global Ratings rating would be in the future.
- In the event that the sovereign rating changes during the cure period, we assess the implied consequences on the sovereignrelated GRE, whose ratings were withdrawn, to determine its rating impact. In the event that the sovereign short-term rating is lowered below 'A-1' during the 90-calendar-day cure period, table 5 applies.
- A 14-calendar-day cure period (we apply 14 calendar days instead of 10 business days to maintain consistency with the other limits

in table 5) applies to other issuers (i.e., other than sovereigns and "concentration eligible" GREs) that have a lower diversification limit (i.e., 5% per issuer at 'AAAm') in the event that the rating on the entity is withdrawn.

**45.** The cure periods applied when an investment is downgraded below 'A-1' are outlined in table 5--excluding specific instances outlined in the above paragraph.

Table 5Cure periods for investments downgraded below 'A-1'(% of portfolio)Cure period (calendar days)Less than or equal to 0.5%397\*Greater than 0.5% or less than or equal to 1.0%120\*Greater than 1.0% or less than or equal to 5.0%60\*Greater than 5%14

Note: This table applies when the ICR is 'A-' or 'BBB+' and not on CreditWatch negative. \*Regardless of the short-term rating, if the long-term rating is 'BBB+' and on CreditWatch negative or 'BBB' or lower, the cure period drops to 14 calendar days at any exposure level.

## 3. Custodial credit risk

**46.** Because of the legal segregation of custodial assets, in our view, securities held in custody are less exposed to the insolvency risk of the custodial bank than direct obligations such as commercial paper and repurchase agreements. There is no minimum rating for a custody bank if the fund's custodial bank is domiciled in a country where the legal and regulatory framework provide for clear segregation and protection of all fund assets. The domiciles that have sufficient legal and regulatory

frameworks to provide for the safety of assets held with custodians include Australia, Bermuda, the Cayman Islands, the Channel Islands, Ireland, Japan, Luxembourg, Mexico, New Zealand, the U.K., and the U.S.

**47.** A fund is rated 'BBm' if any of its assets are held by a custodial bank rated below 'A-2' and the bank is domiciled where the legal and regulatory framework does not provide for clear segregation and protection of all fund assets.

**48.** When a custodial bank is not rated, we typically apply the rating of the bank or the parent based upon the custodian's relationship within the bank group's organizational structure. Typically, custodial banks that are wholly owned by a rated parent receive the same treatment as the parent as long as they remain integral to the parent's operating strategy and they are prudently operated, as demonstrated by good risk-management systems and controls, and a sound operational infrastructure.

## **B.** Maturity

**49.** The maturity of an individual investment and a portfolio's weightedaverage maturity (WAM) are key measures of their tolerance and sensitivity to rising interest rates. Two measures of a portfolio's WAM-- to reset, or WAM(R), and WAM to final, or WAM(F)--are used to measure interest rate sensitivity, primarily because they are relevant, easily determined, and easily available.

**50.** WAM(R) uses the interest-rate reset date as the effective maturity in calculating the WAM, whereas WAM(F) is calculated based on the stated final maturity for each security. WAM(F) is also known as weighted-average life. In general, the longer the maturity or WAM, the more sensitive a security's value or fund's value is to rising or decreasing interest rates. For example, a given interest rate increase would have

roughly twice the impact on a fund with a 60-calendar-day WAM relative to a fund with a 30-calendar-day WAM, all other factors aside. Table 6 lists the quantitative subfactors used to evaluate a fund's portfolio maturity risks.

Table 6

**Maturity subfactors** 

	AAAm	AAm	Am	BBBm	Cure period (business days)
Maturity (days)					
9. Maximum WAM(R)** (see paragraphs 49-50, 53)	60	70	80	90	20
10. Maximum WAM(F)**¶¶ (see paragraphs 49-50, 54-59)	90	100	110	120	20
11. Maximum final maturity per fixed- rate investment, nonsovereign government floating-rate investment, and sovereign floating-rate investments rated below 'AA-' (see paragraph 51)	397	397	397	397	20
12. Maximum final maturity per sovereign government (including "concentration eligible" sovereign government related/guaranteed) floating-rate security rated 'AA-' or higher (see paragraph 51 and table 6)	762	1,127	1,492	1,857	20

\*\*The maximum WAM(R) and WAM(F) limits may be reduced for funds with certain characteristics (such as limited operating history or start-up funds, small asset size, a concentrated shareholder base, or a new shareholder base with uncertain liquidity needs). ¶¶May be adjusted upward by 30 days if invested only in sovereign government (including GREs considered "concentration eligible"/guaranteed entities) rated 'AA-' or higher. If a fund invests in a combination of sovereign government floaters rated 'AA-' or higher and nongovernment floating-rate instruments (or sovereigns rated below 'AA-'), the maximum is based on the weighted average of exposures to each type of floater.

## 1. Individual security final maturity

**51.** Individual investments with legal final maturities in excess of 13 months (or 397 calendar days) are "higher-risk investments," unless they are sovereign floating-rate investments (including "concentration eligible" GREs [see table 1, row 12]) rated 'AA-' or higher or investments with unconditional demand features (i.e., put) that provide for liquidity within 397 calendar days with an issuer rated 'A-1' or 'A' or higher. For further details about floating-rate investments, see paragraphs 95-96.

### 2. Portfolio weighted-average maturity

**52.** A PSFR can be no higher than the lowest category associated with the metrics enumerated in table 6. Each row of the table specifies a metric, and each column corresponds to a PSFR category. Each cell indicates the maximum WAM(R), WAM(F), or final maturity per investment that a fund can have to receive the related PSFR.

## a.WAM(R)

**53.** The relationship between interest rate volatility and NAV volatility limits 'AAAm' rated money market funds to a maximum WAM(R) of 60 calendar days. There is an inverse relationship between a fund's WAM and the minimum positive interest rate shift necessary to cause the NAV to fall to a given level. Consider a fund that holds only one Treasury bill and has a WAM(R) of 60 calendar days. In this case, an instantaneous upward shift of more than 304 basis points (bps)--holding everything else equal in the fund--would need to occur before the NAV of the model fund would fall to 0.9950. There is a 60-calendar-day maximum WAM(R) for 'AAAm' rated funds because the worst one-day shock to the federal funds rate since 1990 was nearly 300 bps (283 bps in January 1991). Thus, the

maximum WAM(R) for the 'AAm', 'Am', and 'BBBm' categories is based on a fund's ability to withstand interest rate shocks of 250 bps, 225 bps, and 200 bps, respectively, without the NAV dropping by more than 0.50%.

## b.WAM(F)

**54.** WAM(R) can underestimate the interest-rate sensitivity and credit spread risk of a portfolio with floating-rate investments since the WAM calculation is based off the floating-rate investments' reset date. See table 6 for the limits for WAM(F) for each rating category.

**55.** VRDOs in daily or weekly mode are excluded from the maximum WAM(F) calculation because those securities generally exhibit lower interest rate sensitivity. In most cases, a credit enhancement provider is obligated to provide liquidity to the security before its legal maturity; such a liquidity provision can be based on a putback or similar mandatory liquidity arrangement.

**56.** In our view, the investor's put option significantly shortens the VRDO's effective maturity. If a VRDO structure includes a put option held solely by the investor, for purposes of determining maturity, we define the tenor of the security as the next liquidity (put) date. For purposes of calculating the weight VRDOs (including TOBs) have on the WAM(F), the tenor of the securities for which the investor holds such puts is incorporated by a calculation assuming the next liquidity date on which the principal amount must unconditionally be paid as a result of executing such a put. The maximum WAM(F) increases by 30 calendar days for all rating categories (e.g., 'AAAm' increases to 120 calendar days) if a fund invests exclusively in floating-rate notes rated 'AA-' or higher and issued by a central government (sovereign) or by a "concentration eligible" sovereign GRE. This is because national government (sovereign) or GRE floating-

rate investments rated 'AA-' or higher generally exhibit lower spread risk than investments in nonsovereign issuers or in sovereigns rated below 'AA-'.

**57.** If a fund invests in a combination of government floaters rated 'AA-' or higher and nongovernment floating-rate instruments (or sovereigns rated below 'AA-'), the maximum WAM is based on a weighted average of the percentage exposures to each type of floating-rate instruments. Based on these weighted averages, the maximum WAM(F) will be 90-120 calendar days for funds rated 'AAAm', 100-130 calendar days for 'AAm', 110-140 calendar days for 'Am', 120-150 calendar days for 'BBBm', and more than 150 calendar days for 'BBm'.

**58.** To determine the maximum WAM(F) for a rated principal stability fund that invests in both sovereign government floating-rate notes (rated 'AA-' or higher) and nonsovereign government floating-rate notes (or sovereigns rated below 'AA-'): (i) calculate the amount of each type of floating-rate investment as a percentage of the total amount of floating-rate investments, (ii) multiply the percentages of each type of floating-rate investment by the respective maximum WAM(F) for sovereign government floaters (rated 'AA-' or higher) and nonsovereign government floaters (or sovereigns rated below 'AA-'), and (iii) add the results together to get the maximum WAM(F) for the fund (see table 7).

Table 7

Determining the maximum WAM(F)							
Invested in floaters (\$)	% of floaters	Max WAM(F) per floater type	Contribution to fund max WAM(F)				

'AAA' rated sovereign government floating- rate investments	19,000,000	19.39	x 120	=	23.27
'AAA' rated corporate floating- rate investments	79,000,000	80.61	x 90	=	72.55
Total floating-rate investments	98,000,000				95.82
					Max WAM(F)

**59.** When calculating a fund's WAM(F) for purposes of applying table 7, the demand features (i.e., puts or maturity shortening features) that specify a date on which the principal amount must unconditionally be paid is used, not the interest rate reset dates.

#### 3. WAM adjustments

**60.** Table 8 lists the reductions to the maximum WAM(R) and WAM(F) limits identified in table 6 for funds with more volatile shareholder characteristics such as start-up funds or funds with limited operating history, small asset size, a concentrated shareholder base, or a new shareholder base with uncertain liquidity needs. The reductions to the maximum WAM(R) and WAM(F) limits are based on:

- The amount of investments maturing in one business day (overnight);
- The number of and diversification of shareholders;
- Shareholder communication and characteristics;
- Investment adviser experience (see paragraph 98); and
- The fund manager's (or "fund's") policies and procedures to offset the risk of a concentrated or volatile shareholder base. (See table 8 for potential mitigants to WAM adjustments.)

#### Table 8

Adjustments to WAM limits and mitigants						
The maximum WAM limits (to reset and to final) will be lowered for each of the following:	Reduction in WAM(R) and WAM(F)	Potential mitigants to WAM adjustment				
An investment adviser has no prior experience managing a principal stability fund.	5 days	None				
A fund with a concentrated shareholder base (i.e., comprises 10 or fewer accounts).	5 days	1) A process, supported by a successful track record, of managing redemptions of a concentrated shareholder base.				
		2) Knowledge of the larger shareholder cash flow needs and expectations (including expected time horizon of large deposits and whether shareholders' investments are mandatory or voluntary).				
		3) A requirement for advance notice for significant redemptions.				
		4) Limits on the amount of money that is transient and not expected to remain invested in the fund such as for sweep accounts.				
A fund has assets of less than the equivalent of \$100 million.	5 days	Same as above				

**61.** Take the example of rating a new government money market fund with \$50 million in assets from less than 10 shareholders managed by an investment adviser--with no track record of managing a fund that S&P Global Ratings rates. For 'AAAm', the maximum WAM(R) will be 50 calendar days (down from our 60-calendar-day maximum), and the

maximum WAM(F) will be 110 calendar days (down from the 120calendar-day maximum) if no mitigating factors exist. The maximum WAM limits are reduced by a total of 10 calendar days--five calendar days because it's a fund with only \$50 million, and another five calendar days because of a concentrated shareholder base (10 or fewer accounts).

**62.** A lower maximum WAM typically applies for three months and then the fund investment portfolio is reassessed to determine if the higher maximum WAM applies.

#### 4. Extensions of maturity

**63.** A 20-business-day cure period applies when a WAM(R), WAM(F), or an investment's final maturity exceeds the limits for a specific rating category--for instance, because of unexpected shareholder redemptions--as long as the fund's marked-to-market NAV does not drop below NAV ranges for each rating category (see table 10).

# C. Liquidity

**64.** The liquidity and price volatility of portfolio investments can greatly affect the market value of investments and result in erosion of a fund's NAV. A fund with a large proportion of relatively illiquid investments is more susceptible to a sizable decline in its portfolio market value and NAV than a fund that holds highly liquid investments (see the glossary for a definition of liquidity).

# 1. 10% limit for assets with limited liquidity (the "illiquid basket")

**65.** A 10-business-day cure period typically applies when more than 10% of a fund's investments have limited liquidity or are illiquid. An investment with limited liquidity or an illiquid investment is an

investment that cannot be sold or disposed of in five business days at approximately the value attributed to it by the fund.

66. Securities that have limited liquidity include:

- Nonmarketable and historically less liquid instruments with maturities greater than five business days, unless the fund holds an unconditional put providing for liquidity within five business days, or if the fund is able to redeem the investment within five business days with no loss to invested principal or accrued interest. Examples of nonmarketable securities include repurchase agreements, unbreakable time deposits, master notes, promissory notes, funding agreements, insurance policies, and loan participation notes.
- Investments denominated in a currency other than a fund's base currency, even if swapped back into the fund's base currency.
- Windows variable-rate demand bonds (VRDBs), X-tenders, and other similar structures (see "Evaluating Security-Specific Risks" for more details).
- CDs that mature in more than five business days that are not traded in a secondary market or are subject to early withdrawal penalties.
- Pooled bank deposit programs (e.g., Certificate of Deposit Accounts Registry Service [CDARS], Deposit Liquidity Accounts, Insured Network Deposits, and Federally Insured Cash Accounts [FICA]) with a maturity of more than one business day. These nonmarketable securities typically impose fees for early withdrawal, and they may experience a delay in receiving Federal Deposit Insurance Corp. insurance payments.

**67.** Marketable securities include commercial paper, banker's acceptances, CDs traded in the secondary market, Treasury bills, and other short-term, high-quality money market instruments rated 'A-1' or higher by S&P Global Ratings or other CRAs.

#### 2. Investments with high price volatility

**68.** Given their price volatility, the following are "higher-risk investments" and subject to a 10-business-day cure period:

- Collateralized debt obligations.
- Credit-linked notes.
- Market value-based securities.
- Investments that possess a maturity extension feature that the investor does not control (i.e., issuer-controlled or asset/trigger driven). However, a security is not a "higher-risk investment" if it has an extension tenure of less than or equal to five business days and the extension event exists to provide additional time for payment/trade settlement issues.
- Investments with an extension feature or option (regardless of the tenure of the extension) unless the option is held solely by the investor.

# **D.** Diversification

**69.** In our experience, a well-diversified portfolio of fixed-income investments reduces the potential impact that an issuer-specific negative credit event could have on the stability of a fund's NAV.

**70.** A PSFR can be no higher than the lowest category associated with the metrics enumerated in table 9. Each row of the table specifies individual criteria metrics, and each column, before the last one, corresponds to a PSFR category. Each cell indicates the maximum level of portfolio

holdings (on a percentage basis) that a fund must have to receive the related PSFR. Charts 3-5 show how the diversification criteria outlined in table 9 are applied.

**71.** A fund is rated no higher than 'BBm' if it has an exposure to an issuer (including debt guaranteed by the same issuer) of greater than the metrics for the 'BBBm' rating category enumerated in table 9.

Diversification subfactors					
	AAAm	AAm	Am	BBBm	Cure period (business days)
Diversification (%)					
13. Maximum per issuer (including debt guaranteed by the same issuer) (see paragraph 69-71, 77-78) except for the items listed in Diversification exceptions	5	7.5	10	15	20
Diversification exceptions (%)					
14. Maximum concentration per sovereign entity (i.e., national government) rated 'AA' or higher (see paragraphs 79-81)	100	100	100	100	N/A
15. Maximum concentration per sovereign entity rated 'AA-' (see paragraphs 79-81)	50	50	67	75	20
16. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in one business day (see paragraphs 79-81)	25	33	40	50	20

Table 9

17. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures between two and five business days (see paragraphs 79-81)	10	15	20	25	20
18. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in more than five business days (see paragraphs 79-81)	5	10	15	20	20
19. Maximum concentration per bank rated 'A-1', 'A+', or 'A' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 77-78)	10	15	20	25	20
20. Maximum concentration per bank rated 'AA-' or higher or 'A-1+' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 77-78)	15	20	25	30	20
High bank concentration (%) 21. HBC: maximum concentration to any bank group rated 'AA-' or higher or 'A-1+', of which investments of 93– 397 days cannot exceed the percentage in the parentheses next to the limit. For example: 25 (10) means of 25%, only 10% could be with maturities of 93-397 days. These limits are subject to additional limits described in "Diversification." The maximum amount excludes overnight deposits. (see paragraphs 72-74)	25 (10)	30 (10)	35 (10)	45 (15)	20

22. HBC: maximum fund aggregate exposure to bank groups rated 'AA-' or higher or 'A-1+' for uncollateralized exposure. Applied when exposures are greater than the "per issuer" limits, (see table 1, row 13). The test excludes overnight 'A-1+' bank deposits and overnight 'A-1+' collateralized (repo) investments (see paragraphs 72-74)	60	70	80	100	20
Group exposure (%)					
23. Maximum exposure per group, unless the higher HBC per group limit applies (see table 1, row 21). The test excludes overnight deposits and overnight collateralized (repo) investments. (see paragraph 75)	15	17.5	20	25	20
Collateralized exposure (%)					
24. Tiered maximums for investments that are fully (100%) collateralized or overcollateralized (more than 100%) (see paragraphs 114-117, table 11)	See charts 3-5 for details	See charts 3-5 for details	See charts 3-5 for details	See charts 3-5 for details	20
GRE exposure (%)					
25. Maximum exposure per "concentration eligible" sovereign government-related/guaranteed entity rated 'AA-' or higher§§ (see paragraph 80)	33	50	67	75	20
PSFR exposure (%)					
26. Maximum exposure to another Standard & Poor's rated PSFR (see paragraphs 124-125)	10	15	20	25	20

§§"Concentration eligible" government-related entity (GRE) (see glossary) or government-guaranteed investments rated 'AA' or above with final maturities of one month or less are excluded from these limits. "Concentration eligible" GRE 'AA-' rated exposures maturing in less than one month have the same limit as 'AA-' sovereigns (table 1, row 15). N.A.--Not applicable.

### 1. High bank concentration and group limits

72. We apply high bank concentration (HBC) limits to funds with exposures to banks rated 'A-1+' by S&P Global Ratings that meet the conditions in the next paragraph and that exceed the standard "per issuer" limit of 5% (see table 1, row 13). We consider only ratings from S&P Global Ratings for the purpose of high bank concentration limits, as we view these exposures as substantial to our rating analysis in this case.

**73.** HBC metrics reflect increased tolerance to portfolio concentration to banks with the highest short-term rating ('A-1+'). In addition, HBC is limited to an aggregate amount of the portfolio, in varying combination. HBCs increase exposure to individual issuers, but at our highest shortterm rating category and with limited maturity. To reduce fund exposure to aggregate issuer concentration risk, two metrics apply:

- A higher minimum 'A-1+' portfolio credit quality metric applies (table 1, row 4), and
- An overall fund aggregate metric applies to banks whose "per issuer" concentration exceeds 5% (table 1, row 22).

### HBC example

**74.** A 'AAAm' rated fund could have up to an aggregate of 40% invested in any single HBC ('A-1+') bank group and of that, up to 10% exposure could be in 93-397 day exposures. The 40% individual bank aggregate could be split as follows: 15% overnight + 15% 2-92 days + 10% 93–397 days. If 40% was allocated to a single HBC, the remaining fund balance to HBC exposure would be 20%. The overall fund aggregate exposure to HBC is 60%.

### **Group limits**

**75.** Group limits seek to minimize fund exposure to the price volatility of debt issued by related entities within the same group (see table 1, row 23 and table 9 of these criteria). We apply the definition of groups as described in "<u>Group Rating Methodology</u>" (GRM), July 1, 2019. Group limits apply to term (greater than overnight) exposures. The maximum (term) group exposure limit for 'AAAm' rated funds is 15%, unless HBC group limits apply. Overnight exposure for a fund could be 100% in a single group or issuer. Differing thresholds are applied for investments at 'A-1' and 'A-1+' rating levels to reflect the differences in credit rating profiles and the potential price volatility of group members based upon how strategically important (or connected) they are to the group, in our view, as well as due to differences in capitalization and prudential regulation of global group members. The group limit, when applied to banks, excludes overnight investments/securities, deposits, and overnight repo transactions.

### 2. Diversification cure periods

**76.** A 20-business-day cure period applies for a failure to maintain metrics consistent with the table 9 thresholds as long as no additional breaches of quantitative metrics occur and the fund's marked-to-market NAV does not drop below the NAV ranges for each rating category (see table 10 and paragraphs 109-111).

### 3. Per issuer diversification

**77.** The per issuer limits (table 1, row 13) exclude uncollateralized overnight bank deposits up to the specified maximums for 'A-1' and 'A-1+' rated banks (table 1, rows 19-20). They are excluded because of reduced mark-to-market risk for overnight bank deposits. We do this because of

the high credit quality of 'A-1+' rated banks and similarly high credit quality of 'A-1' rated banks when exposure is limited to overnight. The individual limits sum to aggregate limits.

**78.** For example, a 4% (i.e., under the traditional 5% per issuer limit) exposure to 90-day commercial paper with an 'A-1' rated bank can be combined with an 'A-1' overnight deposit of 6% (i.e., under the 10% limit) to form an aggregate 10% exposure to the 'A-1' rated bank. If that bank was rated 'A-1+', the overnight deposit could reach 11% to form an aggregate 15%. The aggregate amount should not be larger than the limit allotted for overnight 'A-1' or 'A-1+' bank deposits (table 1, rows 19-20).

#### 4. Sovereign (i.e., national government) entities

**79.** In our experience, in a given country, sovereign securities rated 'AA' or higher are the most liquid and widely traded instruments and have more stable market values during various market cycles than other short-term investment alternatives. For this reason, we allow a substantial exception for the single issuer maximum (5% for a 'AAAm' rated fund); the quantitative metrics permit 100% exposure to a single sovereign rated 'AA' or higher (tables 1 and 9, row 14).

# a. "Concentration eligible" GREs and sovereign government-guaranteed securities

**80.** The maximum exposures of total fund assets to any one "concentration eligible" GRE or sovereign government-guaranteed entity rated 'AA-' or higher by S&P Global Ratings is 33% for 'AAAm', 50% for 'AAm', 67% for 'Am', 75% for 'BBBm', and more than 75% for 'BBm'. GRE or government-guaranteed investments rated 'AA' or higher with final maturities of 30 days or less are excluded from these limits. For an instrument whose obligor is a 'AA-' rated GRE, with a tenor of 30 days or less, "excluded from these limits" means that instead of applying row 25 in tables 1 and 9, for GRE exposure, we apply row 15 (i.e., the limits for 'AA-' sovereigns). We view "concentration eligible" GRE and sovereign government-guaranteed exposures as substantial to our rating, and hence we consider only ratings from S&P Global Ratings for this part of our analysis.

**81.** The maximum exposure to investments guaranteed by GREs related to two or more governments (i.e., World Bank) is 5%.

#### b. Newly issued guaranteed investments

**82.** Investments that are newly guaranteed by a highly rated (short-term rating of 'A-1+' or long-term rating of 'AA-' or higher) sovereign government (including GREs) could exhibit greater price volatility and spread risk than a sovereign's or GRE's own debt. The maximum exposure to newly guaranteed investments is 5% until trading spreads are commensurate with other debt from the same GRE or sovereign agency. Newly issued guaranteed floating-rate investments with legal final maturities of greater than 762 days are "higher-risk investments."

**83.** Newly guaranteed investments with legal final maturities of more than 397 calendar days but less than 762 days are limited liquidity investments.

# c. Sovereigns, GREs, issuer rating withdrawals, issue and issuer downgrades

**84.** The cure period for investments downgraded below 'A-1' for greater than 5% exposures is 14 calendar days. (See table 5.)

**85.** When we withdraw our rating on a "concentration eligible" GRE up to and including the date we withdraw ratings, we apply our last rating for 90 days to any already existing portfolio investment. Subsequent purchases after the rating withdrawal by the fund of that issuer's obligations are considered a "higher-risk investment."

**86.** Unless otherwise informed, we assume that a GRE's likelihood of support category, when not questioned in our rating withdrawal public communication, is unchanged and continues over the proposed 90-day cure period to reduce the balance to 0.00%.

87. The GRE likelihood of support category (based on "

**Rating Government-Related Entities: Methodology And Assumptions**") applies to all references to GRE-related quantitative metrics and is the basis for credit quality and diversification that differ from corporate or U.S. municipal per issuer limits (see table 1, rows 13 and 25).

**88.** In the event that the sovereign rating changes during the cure period, we assess the consequences on the sovereign GRE, whose ratings we withdrew, to determine its consistency with criteria. In the event that the sovereign short-term rating falls below 'A-1' during the 90-day cure period, table 5 applies.

**89.** A 10-business-day cure period applies to nonsovereign/non-GRE issuers that have a lower diversification limit (for example, 5% per issuer for a 'AAAm' rated fund) in the event that we withdrew the issuer credit rating.

**90.** In the event that the sovereign rating is lowered to 'A+' or 'A' from 'AA-' or higher, a 60-day cure period applies. Upon the expiry of the 60-day cure period, if the lower-rated sovereign exposure remains above the assigned sovereign rating category diversification limits, S&P Global Ratings would evaluate the sovereign exposure against the respective diversification limits and adjust the PSFR accordingly. If the sovereign rating falls below 'A', we would apply table 5.

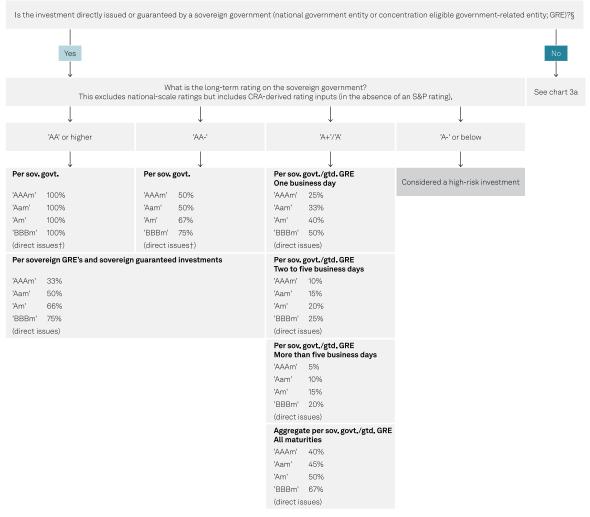
#### 5. Repurchase agreement (repo) diversification

**91.** Maximum aggregate exposure when utilizing repo includes both collateralized and uncollateralized exposures. Further repo diversification information can be found in "Repurchase Agreements" (see paragraph 128). For example:

- (a) If a fund invests 5% in commercial paper with an 'A-1' rated bank, the maximum exposure to an overnight collateralized repurchase agreement with the same 'A-1' bank would be 20%.
- (b) If a fund invests 10% in overnight bank deposits with an 'A-1' rated bank, the maximum exposure to an overnight collateralized repurchase agreement with the same 'A-1' bank would be 15%.

#### Chart 3

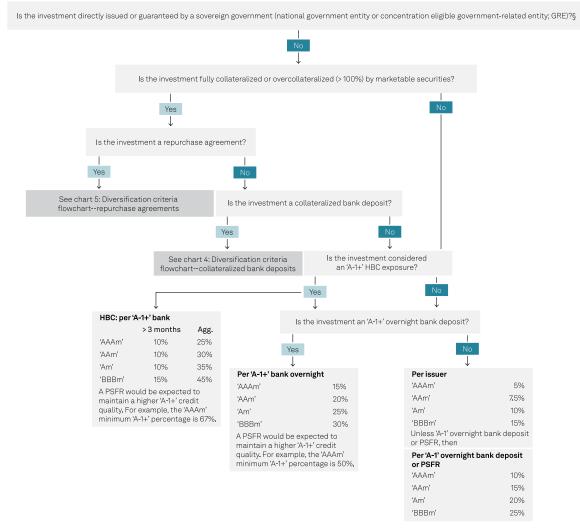
#### Diversification criteria flowchart--overview\*



\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." §Newly guaranteed investments may have more stringent diversification guidelines. †Diversification of issues will be reviewed. Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

#### Chart 3A

#### Diversification criteria flowchart--overview\*



\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." §Newly guaranteed investments may have more stringent diversification guidelines. †Diversification of issues will be reviewed. Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

#### Chart 4

#### Diversification criteria flowchart--collateralized bank deposits\*

#### Is the collateralized deposit with a highly rated ('A-1+' or 'A-1') bank?

Yes ←	Unrated entities that possess a guarantee that has been evaluated by S&P Global Ratings by a rated parent are generally considered at the same investment level as the parent.	 → No
$\checkmark$		

(% exposure per)	aines for highly rated collateralized	a bank deposits		
Bank rating	Overnight (one business day)	Two to five business days	More than five business days	Max aggregate exposure per bank
'A-1+'	50	10	5	50
'A-1'	25	10	5	25

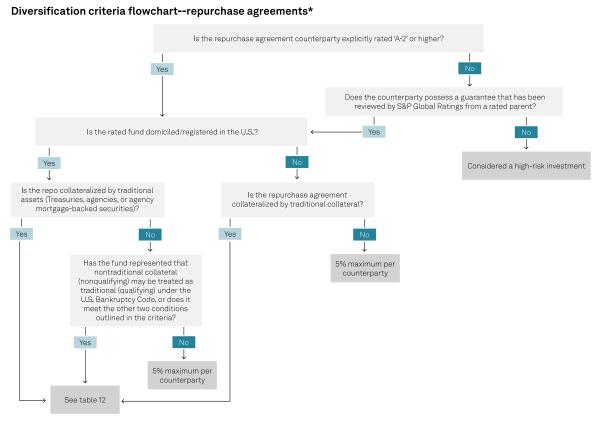
Maximum aggregate exposure includes both collateralized and uncollateralized exposures. For example, if a fund invests 5% in commercial paper with an 'A-1' rated bank, the maximum exposure to an overnight collateralized bank deposit with that same bank would be 20%.

#### PSFR criteria for collateralized bank deposits (lower rated and unrated)

Bank rating	Collateral	Maximum exposure per bank (%)	Maximum aggregate exposure for collateralized deposits (%)	Long-term bank rating	
'A-2'	National government (sovereign) issuers rated 'AA-' or higher at 101%-105%	2.50%	10% for all rated lower than 'A-1' and not rated	'BBB' or higher with a stable outlook	
'A-3' or lower and not rated	National government (sovereign) issuers rated 'AA-' or higher at 105%-110%	0.25%	10% for all rated lower than 'A-1' and not rated	None	
See Section B: Collateralized Certificates Of Deposit					

\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

#### Chart 5



\*Subject to the definition of "ratings" in these criteria and to "Investments not rated by S&P Global Ratings but rated by other CRAs." Source: S&P Global Ratings. Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

# E. Index And Spread Risk

### 1. Index correlation

**92.** Index and spread risks each introduce potential price volatility to assets commonly held by funds assessed for principal stability. New products are periodically developed and they may be tied to indices we have not previously assessed. Typically, variable-rate notes (VRNs) or floating-rate notes (FRNs) tied to indices we (and often others) do not view to be "anchor" money market reference indices are considered "higher-risk investments." Periodically, we assess multiple periods including one, three, five, seven, and 10 years to assess correlation.

**93.** We typically consider products "higher risk" when tied to indices that introduce credit risk or other spread risk whose historical volatility we have observed to be volatile enough not to support a correlation of 95% to a core local currency anchor money market reference rate over a sustained period. Characteristics of anchor money market reference indices include an established trading history, market acceptance, typically a maturity profile within one year, and performance commonly reflective of the movements in short-term money markets in the local currency.

**94.** Indices that we consider anchor money market reference rates include, but are not limited to:

- U.S. dollar anchor rates: federal funds rate, Secured Overnight Financing Rate (SOFR), Bloomberg Short-Term Bank Yield Index (BSBY)
- Euro anchor rates: Euro Short-Term Rate (ESTR), one-month Euro Interbank Offer Rate (Euribor), or three-month Euribor
- Pound sterling anchor rates: Sterling Overnight Index Average (SONIA)
- Canadian dollar anchor rates: Canadian dollar (CAD) overnight, one-month Canadian Dealer Offered Rate (CDOR; also called Canadian Bankers Acceptance Rate), or three-month CDOR
- Australian dollar anchor rates: Australian dollar (AUD) overnight, one-month Bank Bill Swap Rate (BBSW), or three-month BBSW
- In addition to the rates above, one-month and three-month U.S. dollar London Interbank Offered Rates (LIBOR) remain anchor money market reference rates until discontinued.

### 2. VRN/FRN final maturities

**95.** Because of the negative impact that spread risk could have on the market prices of VRNs and FRNs, nonsovereign government floating-rate investments and sovereign floating-rate investments (including "concentration eligible" GREs [see table 1, row 12]) rated below 'AA-' with legal final maturities greater 13 months (397 calendar days) are "higher-risk investments." In addition, sovereign floating-rate investments rated 'AA-' or higher are "higher-risk investments" if their legal final maturities exceed the following:

- 762 days for 'AAAm' rated funds,
- 1,127 days for 'AAm' rated funds,
- 1,492 days for 'Am' rated funds, and
- 1,857 days for funds rated 'BBBm' and lower.

### 3. Higher-risk VRNs/FRNs

**96.** Some VRN and FRN investments may indicate a high correlation with anchor money market reference rates during various interest rate cycles but may also exhibit high price volatility. "Higher-risk investments" for rated principal stability funds include:

- Range and capped floaters/notes--where interest payments could be restricted or limited.
- Dual index floaters/notes--where interest payments are tied to more than one index.
- Floaters tied to an index that lags other money market rates, such as Cost of Fund Index (COFI)-based floaters. In the early 1990s in the U.S., these lagging effects caused material price deviation in floating rating instruments.
- Inverse floaters--where interest payments are based on a formula where the coupon has an inverse relationship to short-term interest rates (or its reference rate) that usually magnifies its price fluctuation.
- Leveraged notes (notes linked to a multiple of an index) and deleveraged notes (notes linked to a multiple, of less than one, of an index).
- Notes based on indices that track movements in commodities (e.g. agricultural, energy, and metals) or equities.

# F. Management

**97.** The strengths and weaknesses of a fund's management may affect the fund's ability to maintain a stable NAV. The analysis of management does not, in itself, raise the overall fund rating--the impact of the analysis is either neutral or negative. The management section of the criteria consists of four subsections:

- Depth, experience, and adequacy of staff (a set of potential adjustment factors and range of impact);
- Credit research and analysis (a set of potential adjustment factors and range of impact);
- Pricing (policy of which leads to three possible outcomes); and
- Internal controls (a set of potential adjustment factors and range of outcomes).

#### 1. Depth, experience, and adequacy of staff

**98.** A PSFR is lower by up to four categories, one category for each factor below, and more if the weakness is severe, if:

- A single person is responsible for several critical functions, including more than one of the following: portfolio management, credit analysis, and shareholder communication. (This risk is typically referred to as "key-man risk.")
- The investment manager does not have measurable experience managing a stable or accumulating NAV fund.
- The fund does not have experienced individuals or procedures in place to manage the portfolio in the absence of the primary portfolio manager. An example is when an individual with limited stable NAV portfolio management experience is responsible for the backup portfolio management duties and there is very limited dayto-day oversight of the backup manager.
- One or a small number of key team members is responsible for a large volume of trading and research across numerous investment sectors as well as other responsibilities, which could lead to significant disruption of operations.

### 2. Credit research and analysis

**99.** A fund's internal credit analysis, security selection process, and ongoing security surveillance procedures are important to the maintenance of a stable NAV. Subject to paragraphs 109-111, a fund rating is lower by one category for each factor below and more categories if the weakness is severe, if:

- It does not have the resources, policies, and procedures to manage the credit risks of the fund's investments to ensure the fund maintains a stable or accumulating NAV (or does not adhere to these policies and procedures). For example, a PSFR is lower by one category if it invests in any corporate securities and does not have an experienced credit research analyst on staff to conduct fundamental credit research (such as analyze income statements, balance sheets, and management's strategy) to determine an investment's level of credit risk.
- It does not have detailed, issuer-specific credit analyses (i.e., documented qualitative review of each issuer regarding components of analysis that factor into the approval of each name). This may be provided by an outside source.

**100.** A detailed, consistent, and independent credit analysis process helps facilitate the maintenance of a stable NAV. The absence of two or more of these factors results in the PSFR being lower by one category:

- Use of approved issuer list and a process for adding and removing names to eligible issuer list.
- Daily monitoring of credit quality of investments and at least annual formal reviews of each issuer.
- Process for responding to deteriorating credit situations.
- An internal credit rating scale that provides evidence that independent analysis has been done, particularly if a credit committee must assign or approve the internal ratings.

**101.** In our consideration of management, the adjustments described in paragraphs 99-100 do not apply if the fund limits all investments to maturities of 30 calendar days or less with the highest S&P Global Ratings short-term rating ('A-1+'), or if the fund invests exclusively in sovereigns rated 'AA-' or higher. Where such investments are concentrated in one or a small number of exposures, we would consider only ratings assigned by S&P Global Ratings. Where such investments are more diversified, we may use CRA ratings in our analysis. However, if they carry only a short-term CRA rating, we would only use ratings from those CRAs whose short-term rating corresponds to S&P Global Ratings' highest 'A-1+' short-term rating category, as informed by regulatory mappings.

### 3. Pricing

**102.** A fund's ability to accurately price investments, including any complex, structured, and derivative securities, is essential to maintaining a stable NAV. In the event that portfolio pricing is not undertaken, S&P Global Ratings is unable to assign a PSFR. A PSFR is no higher than 'BBm' if any of the following applies:

- It does not price investments and calculate a marked-to-market NAV at least weekly.
- The fund manager does not independently review, at least weekly, the prices and marked-to-market NAV calculated by those primarily responsible for these functions (fund accounting/administrator/pricing group).
- The fund manager does not obtain two or more dealer bids to verify pricing on investments that are difficult to price, such as less liquid investments, including investments that have embedded optionality.

### 4. Internal controls

**103.** The review of a fund's internal controls includes the following factors: operating procedures and risk preferences, trade ticket verification, disaster recovery/business continuity, stress-testing capabilities, failure to comply with portfolio eligibility, regulatory guidelines, and pricing policies/NAV deviation procedures. The rating on a fund is lower by one category for each area where it lacks adequate internal controls. The downward rating adjustments are cumulative up to four categories (i.e., if a fund would otherwise receive a PSFR of 'AAAm', the lack of adequate internal controls in two factors lowers the PSFR to 'Am'). A lack of adequate internal controls across a majority of the areas results in a PSFR of 'BBm'.

### a. Operating procedures and risk preferences

**104.** A fund manager's daily investment decision-making process-including how decisions are made, who is responsible for executing them, and what mechanisms are in place to assist management in staying within a fund's internal and/or regulatory limits--has a material impact on a fund's ability to maintain a stable NAV. The rating on a fund is lowered by one category if any of the following conditions exist (and by more than one category if one or more than one of the following conditions are significant):

- It does not maintain operating procedures to stay within its internal and/or regulatory limits.
- Its managers do not have policies on the risk measurement/management and limits related to its investments. This includes VRNs (other related instruments such as step-ups, callables, and convertibles), structured notes, derivative instruments, and other potentially less liquid investments.
- Excessive risk, indicated by excessive NAV changes either positive or negative.
- Lack of sufficient operational support (custodial, administrative, or trustee duties).

#### b. Trade ticket verification

**105.** The rating on a fund is lower by one category if:

 The fund either does not maintain an electronic pre-trade compliance mechanism to monitor the investment parameters or does not maintain a procedure to have two signatures or equivalent review on each trade ticket--one from the individual executing the trade and one from a portfolio manager or another member of the investment advisory staff. This reduction does not apply for portfolios that limit investments to only sovereign governments rated 'AA-' or higher and limit the portfolio WAM(R) to 30 calendar days or less and use one signature/set of eyes.

#### c. Disaster recovery/business continuity

106. The rating on a fund is lower by one category if either:

- It does not have a business continuity plan or there is uncertainty about its ability to execute its business continuity plan, or
- It does not test its business continuity plan at least every two years.

#### d. Stress-testing capabilities

**107.** The rating on a fund is lower by one category if it does not conduct stress tests using either a proprietary model or Standard & Poor's PSFR Sensitivity Matrix at least monthly. This reduction does not apply to a fund that holds only overnight investments.

**108.** The stress test for 'BBBm' or higher rated funds should show the impact in each of the following scenarios (and the combination of the four scenarios):

- Parallel interest-rate shifts of plus/minus 200 bps in 25-basispoint increments.
- Asset decreases (i.e., redemptions) of 10%, 15%, 20%, 25%, and the percentage of the largest historical five-business-day net redemptions for the fund. Note: If the largest voluntary shareholder is more than 25% of net assets, then use that larger percentage in the stress test in lieu of the 25%.
- A downgrade on the largest sovereign, sovereign GRE, and nonsovereign (excluding overnight investments).
- The widening and narrowing of credit spreads (based on current market conditions).

(S&P Global Ratings' PSFR Sensitivity Matrix is in the Appendix, section 1.)

### e. Pricing policies and NAV deviation procedures

**109.** A PSFR can be no higher than the lowest category associated with the metrics enumerated in table 10. A fund has a cure period of maximum five business days when its marked-to-market NAV moves beyond the ranges specified for each rating category. If the marked-to-market NAV moves beyond the ranges specified for 'Dm', the rating is likely to be lowered within the cure period.

**110.** Market losses arising from negative yields as a consequence of investment in low credit risk, short duration securities with negative coupons would not solely result in lowering of the final PSFR (due to the management assessment) or the preliminary PSFR (due to breach of the metrics in table 1) when the fund operating documents permit loss of principal reflected in variable NAV (including accumulating NAV funds) or stable NAV funds with share class reductions or similar mechanisms. These strategies are consistent with the risk mitigants expressed in the criteria (for example, an investment strategy consistent with table 1, which describes tolerance for credit and duration risk at each PSFR level).

Maximun	n NAV move	ment per P	SFR catego	ry		
	AAAm	AAm	Am	BBBm	BBm	Dm
1. NAV ranges*	-0.25% or 0.9975	-0.30% or 0.9970	-0.35% or 0.9965	-0.40% or 0.9960	-0.5% or 0.9950	>0.50% or less than 0.9950

\*For all funds (regardless of rating), failure to increase the frequency to daily (from weekly) for portfolio pricing, marked-to-market NAV calculations, and stress testing when the NAV goes beyond -0.15% deviation (i.e. falls below 0.9985) result in a review of the sufficiency of management's pricing policies and NAV deviation policies and could result in a lower PSFR.

**111.** In addition to the other internal controls described in this section, the PSFR is lower by one category if either:

#### Table 10

- The fund does not maintain written policies for dealing with deviations in its marked-to-market NAV (a NAV deviation plan). These policies should include the specific NAV percentage deviations where action is taken, what action is taken, and the individual responsible for these actions; or
- The portfolio managers are unable to explain how they would execute the NAV deviation plan.

# 2. Evaluating Security-Specific Risks

**112.** The security-specific risks section addresses how we incorporate various risks into the framework described above. The criteria cover the following investment structures:

- Callables and convertibles,
- Collateralized CDs,
- Deposits with foreign bank branches,
- Extendible investments,
- Interest rate swaps,
- Other funds,
- Repurchase agreements,
- Reverse repurchase agreements and securities lending, and
- Windows VRDBs/X-Tenders.

# A. Callables, Convertibles, And Similar Structures

**113.** The calculation of WAM(R) and WAM(F) is based on the final maturity date for callable, convertible, and step-up bonds. When the issuer exercises the option on the convertible bond to move from a fixed-rate security to a floating-rate security, the calculation of the WAM(R) is based

on the next interest rate reset date. When the price of the note does not approximate par value (typically within 0.50%), the final maturity date is used to calculate the WAM(R).

# **B.** Collateralized Certificates Of Deposit

**114.** Collateralized CDs in the U.S. benefit from being held by a regulated depository institution with a track record of providing proceeds within five business days to the fund or pool based on the liquidity of the collateral. However, in the U.S., CDs that benefit from the Federal Deposit Insurance Corp. guarantee receive the same credit quality assessment as long as the United States of America rating is higher than or equal to 'A'.

**115.** A fund investing in collateralized CDs receives a 'BBm' rating unless all of the following conditions by bank short-term rating in table 11 are met or paragraph 116 is applied.

Collateralized deposits with banks					
Bank short-term rating	'A-1+' and 'A- 1'	'A-2'	'A-3' or lower and NR¶		
Maximum maturity on deposit	397 days	397 days	397 days		
Collateral* (%, maturity, pricing frequency)	100%	National government (sovereign) issuers rated 'AA-' or better at 101%– 105%*; priced at least weekly	National government (sovereign) issuers rated 'AA-' or better at 105%– 110%*; priced at least weekly		
Custody of collateral	Held in name of fund	Held in name of fund	Held in name of fund		

Table 11

Maximum exposure per bank (%)	See chart 3- 3a	2.50%	0.25%
Maximum aggregate exposure for collateralized deposits (%)	100%	10% for all rated lower than 'A-1' and NR	10% for all rated lower than 'A-1' and NR
Bank long-term rating	N/A	At least 'BBB' with a stable outlook	N/A

\*Actual collateralization amounts depend on maturity, type, and pricing frequency. The more frequently the collateral is priced, the shorter the maturity of the collateral and the more liquid the collateral (i.e., 'AA-' or higher rated sovereign), the less excess collateral needed to back the deposit. The collateral must be priced at least weekly, maintained at predetermined collateralization levels on each pricing day, and held in custody in the name of the fund for the fund to be rated investment grade. ¶This column also applies to banks rated 'A-2' that do not have a long-term rating of at least 'BBB' with a stable outlook. N/A--Not applicable. NR--Not rated.

**116.** When table 11 does not apply, the specific levels of overcollateralization are calculated using the midpoint of 'AA' and 'A' transactions from tables 1, 2, and 3 in "

<u>Methodology And Assumptions For Market Value Securities</u>." The estimated worst historical price decline of assets pledged as collateral is calculated by asset type, where multiple assets of the same type are aggregated using their weighted average term to maturity.

**117.** The maximum aggregate exposure to all collateralized CDs with banks that are rated below 'A-1' or that are not rated is 10%.

# **C.** Deposits With Foreign Bank Branches

**118.** We apply "<u>Financial Institutions Rating Methodology</u>" when determining credit quality of bank branches. Note, we do this when S&P Global Ratings rates the parent. We do not apply these financial

institution criteria to other CRA ratings. We would apply another CRA's rating on a bank branch if we do not have a rating applicable to the parent.

119. There are four pertinent situations referenced in "

Financial Institutions Rating Methodology" which determine whether we rate the bank branch at the same level as the rating on the parent, or whether certain sovereign-related caps apply to our assessment of bank branch creditworthiness:

- Jurisdictions whose sovereign foreign currency rating is 'CCC+' or lower,
- Jurisdictions whose sovereign foreign currency rating is 'B-' or higher,
- Branches located in offshore banking centers, and
- Branches of EU banks that are located in another EU member state.

**120.** For not rated offshore banking jurisdictions such as the Channel Islands and the Isle of Man, see "

<u>The Channel Islands, Isle of Man, And U.K. Sovereign Credit Risk</u>," Feb. 6, 2004, and for the Cayman Islands, see "<u>Cayman Islands Offshore Deposits</u>," Sept. 8, 1999.

# **D. Extendible Investments**

**121.** Investments that possess a maturity extension feature that the investor does not control (i.e., issuer-controlled or driven by pre-established metrics of the underlying collateral pool supporting the transaction) are "higher-risk investments." This treatment does not apply to securities with an extension tenure of less than or equal to five business days to provide additional time for payment/trade settlement

issues as outlined in the program documentation. The calculation of WAM(R) and WAM(F) is based on the legal final maturity date for these investments.

# **E. Interest Rate Swaps**

**122.** The portion of a fund's aggregate market value of the interest rate swaps that exceeds 10% of fund assets is "higher-risk investments." In addition, swaps that do not have all of the following characteristics are "higher-risk investments" (and do not count toward the 10% limit):

- Entered into with a counterparty rated 'A-1' or better,
- Priced daily,
- Fund's ability to unwind both sides of the swap transaction prior to maturity, and
- Fund's right to sell the underlying security while the swap is in force.

**123.** For the purposes of applying table 6, WAM(R) and WAM(F) are calculated both including and excluding the effects of interest rate swaps that reduce portfolio maturities.

# F. Other Funds

**124.** The fund industry's systemic liquidity risk, in our view, increases as funds invest significant percentages of their assets in other funds. An investment in another rated fund constrains the rating on the investing fund to the rating on the invested fund, regardless of the size of the investment. For example, Fund A invests in Fund B. If Fund B is rated 'Am', the rating on Fund A is limited to 'Am'. In addition, a fund's maximum exposure, at a given PSFR level, to any single fund with an S&P Global Ratings PSFR is as follows:

- 10% for 'AAAm'
- 15% for 'AAm'
- 20% for 'Am'
- 25% for 'BBBm'

**125.** While the previous paragraph states "per fund" diversification limits, there is no maximum on the aggregate exposure to investments in other rated funds. For example, a PSFR could invest equally in 10 other 'AAAm' rated funds and itself be rated 'AAAm'. The per fund and aggregate diversification limits for investing in other rated funds apply to fund of fund structures but not to feeder or spoke funds in master-feeder and hub-spoke structures (see "Master-Feeder Funds"). In those structures, the feeder or spoke allows shareholders to invest in the same basket of assets, in contrast with a fund of funds, where an investor gains exposure to numerous baskets of assets (i.e., funds).

**126.** For purposes of applying table 6, a fund's WAM(R) and WAM(F) are calculated using the maximum number of calendar days the fund (in which the rated fund invests) is required to redeem shares upon receipt of a redemption request. However, WAM(R) and WAM(F) are calculated using a shorter maturity if the acquired fund has a policy we can identify to provide redemption proceeds within a shorter time.

**127.** "Interfund lending" (when one fund invests in another fund not through a purchase of shares but rather through a debt instrument arrangement) is treated the same way as investments in other funds.

## **G. Repurchase Agreements**

**128.** Repurchase agreements (repos) are contracts involving the simultaneous sale and future repurchase of an asset. In a repo transaction, a fund lends cash to a counterparty, which posts securities

as collateral based on the agreement and expectation that the counterparty will repay the cash loan to the fund at an agreed-upon date and price in exchange for the securities. In non-U.S. domiciles, these are typically referred to as reverse repurchase agreements.

**129.** A repo is often viewed as collateralized lending since a fund extends a liability (loan) and takes the collateral as security against the loan. When a dealer (counterparty) uses the term "repo securities," it generally means it's going to finance securities it owns or borrows. When an investor (such as a money market fund) uses the term "repo securities," it generally means it's going to invest in repo (i.e., lend cash to a counterparty and receive securities as collateral).

#### 1. Repo maturity

**130.** The maturity of a repo agreement is the final maturity of the agreement. If the agreement contains an unconditional put that the investor controls, this would result in a shorter effective maturity for the agreement. The put date is used as the maturity date.

#### 2. Repo counterparty risk

**131.** Despite the presence of collateral, high credit quality of a repo counterparty provides a level of protection to the PSFR. Upon a counterparty default, wider liquidity and market risks could increase as the fund takes possession of the underlying collateral, potentially affecting a fund's ability to maintain principal stability. Counterparties (such as broker/dealers) that do not have a rating of 'A-1+', 'A-1', or 'A-2' from S&P Global Ratings or by other CRAs or do not have a guarantee of all their obligations from an equivalently rated S&P Global Ratings-rated entity, or by other CRAs, are "higher-risk investments." Since we view 'A-2' rated counterparties as sufficiently rated but more likely to force reliance upon the collateral, a repo rated 'A-2' (i.e., whose counterparty is rated 'A-2') is limited to overnight maturities and a fund aggregate and per issuer exposure limit comparable with 'A-1', and more limited than 'A-1+' rated repos (see table 12). This applies to all repo, regardless of the types of collateral backing these transactions.

#### 3. Repo diversification

**132.** The diversification limits for repos vary based on the type of collateral supporting the repos. Collateral generally falls into two categories: traditional and nontraditional.

- Traditional collateral for U.S.-domiciled funds comprises U.S. government and U.S. government agency securities, including Treasuries, agency discount notes, and agency mortgage-backed securities. For non-U.S.-domiciled funds, traditional collateral includes highly rated ('AA-' or higher, or 'A-1+') sovereign government securities or their explicitly guaranteed agencies (i.e., sovereign government-related entities). Funds that use these collateral types invest in "traditional repo."
- Nontraditional collateral is everything that is not listed under traditional collateral. For U.S.-domiciled funds, this includes investment-grade and speculative-grade corporate debt, money market instruments, asset-backed securities, emerging market debt, and equities. For non-U.S.-domiciled funds, this includes highly rated covered bonds, corporate debt, asset-backed securities, emerging market debt, and equities. Funds that use these collateral types invest in nontraditional repo.

**133.** The different diversification limits based on the collateral supporting these agreements apply when the repos are at least fully (i.e., 100%) collateralized on a daily basis. Repos that are not fully collateralized and

term repos (i.e., maturities beyond one business day) that do not price and maintain at least 100% collateralization on a daily basis are subject to the same diversification limits as other investments.

**134.** Table 12 lists the diversification limits for traditional repos (at least 100% collateralized) for funds rated 'BBBm' or higher. Investments that exceed the percentages listed in table 12 are "higher-risk investments."

Diversification guidelines for repurchase agreements with traditional collateral**				
(%)	AAAm	AAm	Am	BBBm
Maximum per 'A-1+' counterparty overnight (1 business day)	50	50	50	50
Maximum per 'A-1+' counterparty 2-5 business days	10	10	10	10
Maximum per 'A-1+' counterparty more than 5 business days*	5	5	5	5
Maximum aggregate exposure to any single 'A- 1+' counterparty	50	50	50	50
Maximum per 'A-1' counterparty overnight (1 business day)	25	25	25	25
Maximum per 'A-1' counterparty 2-5 business days	10	10	10	10
Maximum per 'A-1' counterparty more than 5 business days*	5	5	5	5
Maximum aggregate exposure to any single 'A- 1' counterparty	25	25	25	25
Maximum per 'A-2' counterparty overnight (1 business day)	5	5	5	5
Maximum per 'A-2' counterparty 2 or more business days	0	0	0	0

Table 12

Maximum fund exposure, aggregated over all 'A-2' counterparties 10 10 15 20

\*The aggregate amount of all repos across all counterparties (regardless of the rating on the counterparty) with maturities of more than five business days is limited to 10% of a fund's total assets and is counted toward the 10% maximum for limited liquidity/illiquid investments. Maximum aggregate exposure includes both collateralized and uncollateralized exposures. For example, if a fund invests 5% in commercial paper with an 'A-1' rated bank, the maximum exposure to an overnight collateralized repurchase agreement with that same bank would be 20%. \*\*For counterparties not rated by S&P Global Ratings, the limits stated above are reduced by one-half. For example, for the first row, maximum overnight (1 business day), the maximum exposure would be 25% instead of 50% for repurchase agreements whose rating is from another CRA and comparable (equivalent) to 'A-1+'. In addition, this only applies when the collateral reflects overcollateralization as described in these criteria. Collateralization of 100% or less is not sufficient to qualify for the exposure limits in this table. This limit is a subset of the row 6 aggregate in tables 1 and 2.

**135.** In the event a counterparty defaults, nontraditional repos may be subject to greater liquidity and market risks than traditional repos. The portion of nontraditional repos with any single 'A-1+' or 'A-1' counterparty (or broker/dealer) in excess of 5% of total fund assets is a "higher-risk investment." Nontraditional repos with 'A-2' counterparties are "higher-risk investments."

**136.** For purposes of evaluating counterparty exposure, repos collateralized by nontraditional collateral held by U.S.-domiciled funds that meet the following conditions (i) and (ii) are traditional repos:

(i) The fund's repos fall within the definition of a repurchase agreement under the Bankruptcy Code, or there is a legal opinion satisfactory to S&P Global Ratings stating that:

- The fund meets the definition of either a financial institution or financial participant, or otherwise qualifies as an entity entitled to benefit from special protections under the local/prevailing Bankruptcy Code with respect to securities contracts; and
- The fund's repos qualify as "securities contracts" as defined in the local/prevailing Bankruptcy Code.

(ii) If the repos are with financial institutions subject to the U.S. Federal Deposit Insurance Act (FDIA), the fund sponsor must provide assurances that the repos satisfy the definitions of "qualified financial contract" under the FDIA in addition to the definitions of either a repurchase agreement or a securities contract as the case may be.

**137.** In the U.S., traditional repos and any nontraditional repos that meet the conditions outlined above are qualifying repos because they receive special treatment under the U.S. Bankruptcy Code. The diversification criteria outlined in table 12 apply to qualifying repos. Nontraditional repos that do not meet the conditions outlined above are nonqualifying repos and are subject to the same diversification limits as other investments (i.e., 5% per repo counterparty).

**138.** For purposes of evaluating counterparty exposure, repurchase agreements collateralized by sovereign government bonds rated 'AA-' or higher are traditional or qualifying repos for funds domiciled or registered outside the U.S. Repurchase agreements collateralized by all other investments are nontraditional or nonqualifying repos.

**139.** Chart 5 summarizes the maximum levels of repo exposure by counterparty.

# H. Reverse Repurchase Agreements And Securities Lending

**140.** A reverse repo (in the U.S.) is a leveraging technique in which a fund manager agrees to sell a security in the portfolio while simultaneously agreeing to repurchase it at a future time. In non-U.S. domiciles, these are typically referred to as repurchase agreements. The fund manager typically takes the cash and invests it in another asset. A reverse repo is often viewed as collateralized borrowing since a fund incurs a liability and uses the security as collateral. In this regard, securities lending is similar to reverse repo and can also increase the risk level of a money fund portfolio.

141. Counterparty exposures in reverse repo and securities lending transactions that do not have a rating of 'A-1' or 'A-1+' from S&P Global Ratings or by other CRAs and do not have either a guarantee or an indemnification of their obligations from an entity with an S&P Global Ratings rating of 'A-1' or 'A-1+' or by other CRAs are "higher-risk investments."

**142.** Reverse repos and securities lending transactions have the following limits:

- A maximum maturity of 30 calendar days for 'AAAm', 60 calendar days for 'AAm', 90 calendar days for 'Am', and 120 calendar days for 'BBBm'.
- A maximum of 25% of net assets in transactions with maturities of less than or equal to five business days for all PSFR categories of 'BBBm' or higher.
- A maximum of 10% of net assets in transactions with maturities that exceed five business days for PSFR categories of 'BBBm' or higher. Additionally, these investments are limited liquidity assets.
- A maximum aggregate of 25% of net assets for all PSFR categories of 'BBBm' or higher (i.e., if a 'AAAm' rated fund enters into a 10calendar-day reverse repo totaling 10% of its net assets, the maximum in reverse repo maturing in less than five business days is 15%).

**143.** The reinvestment of cash collateral from reverse repos and securities lending transactions is treated the same as other assets in a fund's portfolio. In addition, a fund is rated 'BBm' if the reinvested cash collateral:

- Is not matched by maturity on both sides. For example, cash from a reverse repo with a seven-day term that is invested in a security with a maximum maturity of seven days is considered matched; or
- Exceeds 10% of fund assets reinvested in VRNs or FRNs, and the interest rate reset of the VRNs or FRNs exceeds the term of reverse repo or securities lending transaction. (For example, securities lent out for seven days and cash collateral reinvestments in floaters are limited to 10%, and the interest rate reset of the floaters should be no more than seven days.)

**144.** For purposes of applying table 6, WAM(R) and WAM(F) are calculated by including reverse repos and securities lending transactions as fund assets (i.e., reinvestment of cash collateral).

145. The following examples show the effects leverage can have on a fund's WAM(R) and WAM(F). Assume an unleveraged fund invests in U.S. Treasury securities with 60 calendar days to maturity, which means the WAM(R) of the fund is 60 calendar days. For example, a fund with a \$100 million portfolio enters into a reverse repo, or lends 25% of its assets and invests the proceeds in an overnight repo. Although this transaction is matched, the effective WAM(R) increases. If the overnight repo investment is included in the portfolio, the WAM(R) (gross) could be reported as 48.20 calendar days ([80% times 60 calendar days] plus [20% times one day] equals 48.20 calendar days). However, because the increase in assets to \$125 million has a leverage effect, the WAM(R) is calculated on a net basis, which is 60 calendar days. To properly determine the WAM(R), the unleveraged portfolio WAM(R) of 60 calendar days is combined with the WAM(R) of the borrowed assets and results in a WAM(R) of 60.25 calendar days (60 calendar days plus [25% times one calendar day]). If the fund invested in a 30-calendar-day security, the fund's effective WAM(R) would be 67.50 calendar days (60 calendar days plus [25% times 30 calendar days]). If a fund only invests in fixed-rate investments, the leveraged WAM(R) and WAM(F) are the same. However, if the fund invested cash collateral in a floating-rate note with a final maturity of 300 calendar days and an interest rate reset of one calendar day, the WAM(R) would be calculated using a one-calendar-day maturity for the note and the WAM(F) using a 300-calendar-day maturity for the note.

# I. Windows Variable-Rate Demand Bonds/X-Tenders

**146.** Windows VRDBs, X-Tenders, and other similar extendible reset structures are term put bonds and are not evaluated as extendible investments under these criteria. For instance, windows VRDBs typically possess a weekly interest rate reset and offer a dual put feature. The dual put includes (1) a conditional put during an initial remarketing window after the initial optional tender and (2) an unconditional put that is several months after the original tender. Liquidity (cash) for payment of a tender is first paid from remarketing proceeds, and then from the issuer or obligor. The windows structure does not allow the issuer to extend the maturity on the investor at any point, but it does enable the issuer to pay the investor earlier than expected.

**147.** For purposes of applying table 6, WAM(R) and WAM(F) are calculated using the longest final maturity (as stated in the legal documents) date for these instruments. For example, until a fund decides to exercise the put, each day a fund holds these bonds, they are carried to the long final maturity date for WAM(R) and WAM(F) calculations. If the security pays a floating rate of interest, depending on the interest rate reset date and the put date, the fund may opt to use the interest rate reset date in its WAM(R) calculation. Windows VRDBs, X-Tenders, and other similar extendible reset structures are limited liquidity/illiquid investments.

## 3. Master-Feeder Funds

**148.** The criteria also apply to master-feeder funds, which are sometimes referred to as a "Hub and Spoke" structure. In the master-feeder structure, the feeder fund conducts essentially all of its investing through the master fund. We impute the rating on the master portfolio since it holds the underlying investments of the feeder fund.

## 4. Bifurcation

**149.** On occasion, a fund manager may attempt to minimize the impact a downgraded or defaulted security has on a rated fund by removing the distressed asset from the portfolio and placing the asset into a separate portfolio. This process, commonly called bifurcation, aims to protect the rest of the portfolio from any losses the distressed asset has incurred. The PSFR criteria apply to each separate piece (portfolio) when a rated fund is bifurcated.

**150.** A fund receives a rating of 'Dm' if it bifurcates to avoid realizing a loss of more than 0.50% per share since we view this event as equivalent to a distressed exchange. Subsequent to this rating action, the rating on the fund is raised to a level that reflects its ability to maintain the new principal value. We apply "

### Rating Implications Of Exchange Offers And Similar Restructurings, Update

" when considering the rating implications of bifurcation. (See "Pricing policies and NAV deviation procedures," paragraphs 109-111, and table 10.)

# 5. Parental Support

**151.** PSFRs are based on a fund's independent ability to maintain principal stability and limit exposure to losses resulting from credit risk and do not include a fund sponsor's willingness or ability to support the fund's NAV. Funds are not considered part of a group as defined in the GRM. However, we recognize that there is operational reliance upon a fund sponsor and the rating does include the measures a sponsor and a fund manager takes or has committed to implement cures. Operational reliance is considered in paragraph 104 and more broadly is incorporated as part of our assessment of management. Historically, on occasion, the types of support have generally included of one or more of the following:

credit support agreements, LOCs, purchasing distressed assets out of the fund at amortized cost, making cash investments in the fund, and creating an escrow/reserve account in the name of the fund with highly rated entities. A rating on a sponsor or a sponsor's support is not applied to raise a rating above its preliminary PSFR.

## 6. Negative Yields

**152.** Negative yields due to market rates are excluded from the calculations to determine NAV stability, as described in table 1 (PSFR Quantitative Metrics), table 10, and paragraph 109-111. The disclosure to investors indicates that they have affirmatively voted for or invested with full knowledge of the fund's ability to lose principal but maintain stable NAV by reducing the number of shares owned by investors or similar action (e.g., a declining NAV for accumulating NAV funds). We do not lower our PSFR when the permitted loss is due to negative yield that results from investment in low credit risk, short duration securities. These strategies are consistent with the risk mitigants expressed in our criteria. NAV declines due to management fees greater than the fund's return result in a loss of principal to investors and can result in lowering a PSFR.

# **APPENDIX**

# **1. PSFR Sensitivity Matrix**

**153.** S&P Global Ratings makes available to all rated funds its own stress-testing model called the Standard & Poor's PSFR Sensitivity Matrix. This model enables the user to stress changes in asset size, interest rate shifts, and credit spread movements--or a combination of all three (see the glossary for a definition of stress testing).

#### Table 13

S&P Global Ratings' PSFR sensitivity matrix				
WAM(R)	60			
WAM(F)	120			
Shares outstanding (\$)	500,000,000			
Total fund assets (\$)	499,250,000			
Market value (NAV)	0.9985			
Credit spread movement (bps)	50			
% total credit (nongovernment) securities (of portfolio)	25			
% corporate floaters (of portfolio)	15			
Total \$ loss	(750,000)			
Total \$ gain	0			
Basis-point shift	Selected shareholders	Largest redemption over five consecutive business days		
200	0.994179	0.993355	0.993604	0.994315
175	0.994646	0.993889	0.994118	0.994772
150	0.995114	0.994423	0.994632	0.995228
125	0.995581	0.994956	0.995146	0.995685

100	0.996049	0.99549	0.995659	0.996142
75	0.996516	0.996024	0.996173	0.996598
50	0.996984	0.996558	0.996687	0.997055
25	0.997452	0.997091	0.9972	0.997511
0	0.997919	0.997625	0.997714	0.997968
(25)	0.998387	0.998159	0.998228	0.998425
(50)	0.998854	0.998692	0.998741	0.998881
(75)	0.999322	0.999226	0.999255	0.999338
(100)	0.99979	0.99976	0.999769	0.999795
(125)	1.000257	1.000294	1.000283	1.000251
(150)	1.000725	1.000827	1.000796	1.000708
(175)	1.001192	1.001361	1.00131	1.001164
(200)	1.00166	1.001895	1.001824	1.001621
Redemptions/subscriptions (%)	(12)	(23)	(20)	(10)
Shares outstanding	439,444,861	385,000,000	400,000,000	450,000,000
Top 10 shareholders	\$	% of fund	Stress redemption	
Shareholder 1	50,000,000	10.02	No	
Shareholder 2	40,444,200	8.1	Yes	
Shareholder 3	38,456,871	7.7	No	
Shareholder 4	15,067,896	3.02	No	

2.5

Yes

12,456,985

Shareholder 5

Shareholder 6	10,871,596	2.18	No
Shareholder 7	9,875,645	1.98	No
Shareholder 8	7,563,121	1.51	Yes
Shareholder 9	5,312,879	1.06	No
Shareholder 10	3,215,468	0.64	No
Stress top 10	193,264,661	38.71	No
Total fund assets	499,250,000	100	60,464,306.00

## 2. Principal Stability Fund Rating Definitions

**154.** An S&P Global Ratings principal stability fund rating, also known as a "money market fund rating," is a forward-looking opinion about a fixed income fund's capacity to maintain stable principal (net asset value) and to limit exposure to principal losses due to credit risk. When assigning a principal stability rating to a fund, S&P Global Ratings analysis focuses primarily on the creditworthiness of the fund's investments and counterparties, and also its investments' maturity structure and management's ability and policies to maintain the fund's stable net asset value.

**155.** We generally do not lower ratings to 'Dm' when the manager of any fund suspends redemptions for up to five business days or meets redemption requests with payments in-kind in lieu of cash, if this occurs because the fund is faced with an unanticipated level of redemption requests during periods of high market stress, and this suspension is permitted under the fund's prospectus.

**156.** Principal stability fund ratings, or money market fund ratings, are identified by the 'm' suffix (e.g., 'AAAm') to distinguish the principal stability rating from an S&P Global Ratings traditional issue or issuer

credit rating. Principal stability fund ratings are neither commentaries on yield levels paid by the fund, nor are they commentaries on loss of principal due to negative yields.

**157.** Market losses arising from negative yields as a consequence of investment in low credit risk, short duration securities with negative coupon would not solely result in lowering a PSFR when the fund operating documents permit loss of principal reflected in variable NAV or stable NAV funds with share class reductions or similar mechanisms. These strategies are consistent with the risk mitigants addressed in our analysis of and tolerance for credit and duration risk at each PSFR rating level.

Table 14

#### Principal stability fund ratings\*

#### **Category Definition**

AAAm	A fund rated 'AAAm' demonstrates extremely strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. 'AAAm' is the highest principal stability fund rating assigned by Standard & Poor's.
AAm	A fund rated 'AAm' demonstrates very strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. It differs from the highest-rated funds only to a small degree.
Am	A fund rated 'Am' demonstrates strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than funds in higher-rated categories.
BBBm	A fund rated 'BBBm' demonstrates adequate capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. However, adverse economic conditions or changing circumstances are more likely to lead to a reduced capacity to maintain principal stability.

	A fund rated 'BBm' demonstrates speculative characteristics and uncertain
	capacity to maintain principal stability. It is vulnerable to principal losses due
BBm	to credit risk. While such funds will likely have some quality and protective
	characteristics, these may be outweighed by large uncertainties or major
	exposures to adverse conditions.
Due	A fund rated 'Dm' has failed to maintain principal stability, resulting in a
Dm	realized or unrealized loss of principal.

\*The ratings from 'AAm' to 'BBm' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the rating categories.

# 3. Glossary

**158.Accumulating NAV funds.** Accumulating NAV funds generally operate under the same investment guidelines as constant NAV funds, and income is accrued daily. However, unlike constant NAV funds, income is not distributed. Instead, income is reflected in an increase in the value of the fund shares and is realized upon redemption of those shares at a higher price.

**159.Dilution.** Dilution can accelerate fund losses when interest rates are rising, causing a fund to break the dollar. Breaking the dollar occurs when a fund's marked-to-market NAV drops below 0.995 per share, at which point investors are redeemed at 0.99. For example, a 200-basis-point rise in interest rates causes a 60-day WAM portfolio's market value to drop to 0.996712 per share. A subsequent 35% redemption (paid out at 1.00 per share) dilutes the portfolio's market value to 0.994942 per share, thus breaking the dollar (see table 15).

Table 15	
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NAV dilutionassumptions	
Portfolio asset value:	\$100 million
Weighted average maturity:	60 days

Number of shares:	100 million
Share value:	\$1.00
Share price:	\$1.00

#### Event 1: Interest rates rise 200 basis points (2.00%)

Number of shares:	100,000,000
Portfolio value drops to:	\$99,671,233
Unrealized loss:	\$328,767 (\$100,000,000 -\$99,671,233)
Share value	\$0.996712 (\$99,671,233/100,000,000 shares)
Share price:	\$1.00 per share

#### Event 2: Following event 1, fund experiences 35% redemption

Result	
Number of shares:	65,000,000
Portfolio value drops to:	\$64,671,233 (\$99,671,233 - \$35,000,000)
Unrealized loss:	\$328,767
Share value:	\$0.994942 (\$64,671,233/65,000,000 shares)
Share price:	\$0.99 per share

**160.Hot money.** Hot-money investors move their investments in and out of a fund based primarily on interest rate movements. These shareholders can introduce a high level of volatility to the asset base of a fund.

**161.Index and spread risk.** Index risk is the possibility that the coupon of a VRN or FRN will not adjust in tandem with money market rates. Spread risk is the possibility that the spread on a floating-rate note will be lower than the prevailing market rate. Index risk can arise when the variablerate coupon's adjustments are based on a non-money market index, a money market index in which the coupon adjusts based on a multiple (or fraction) of the index, or an index based on the difference (or spread) between two or more indices.

**162.Liquidity.** The liquidity of a security refers to the speed at which that security can be sold or disposed of in the ordinary course of business at approximately the value ascribed to it by the fund.

**163.Money fund portal.** Money fund portals are Web-based systems that offer a simplified way for investors to transact with funds.

**164.Stress testing.** Stress testing (sometimes referred to as "scenario" or "what-if" analysis) can be an effective tool to track the sensitivity of a fund's marked-to-market NAV to changes in interest rates, credit spread movements, net redemptions, and the combined effects of these items.

**165.WAM(R) and WAM(F).** To more accurately monitor a rated fund's interest rate and spread risk, two measures of a portfolio's WAM are used--WAM to reset, or WAM(R), and WAM to final, or WAM(F). WAM(R) uses the interest-rate reset date as the effective maturity in calculating the WAM, whereas WAM(F) (also known as weighted average life, or WAL) is calculated based on the stated final maturity for each security.

**166."Concentration eligible" GREs.** For the purposes of these criteria, we define a "concentration eligible" GRE as one with a rating at the same level or higher than the rating on its related sovereign, with likelihood of support from the sovereign of at least "very high," and whose price stability we believe will be generally consistent with those of similar GREs that have more stable market values during various market cycles than other short-term investment alternatives. We will not consider a GRE to be "concentration eligible" if we have reason to believe that it will

have materially greater price instability than other similarly rated GREs. The likelihood of support results from applying " <u>Rating Government-Related Entities: Methodology And Assumptions</u>."

# 4. Insured Deposits (Including Investment Programs Focused On FDIC-Insured Deposits)

**167.** This appendix provides additional detail with regard to how we apply the PSFR criteria to insured U.S. bank deposits. We view the presence of Federal Deposit Insurance Corp. (FDIC) insurance for U.S. bank deposits, including those deposited at banks we don't rate, as generally supportive of money fund net asset value (NAV) stability (see section C. Liquidity). In addition, we generally include the benefit of credit substitution as supportive of PSFRs as it relates to money fund NAV stability (see section A. Credit Quality). This appendix provides additional detail about how we apply the criteria when funds invest in assets benefiting from alternatives to traditional guarantees, such as structured indemnity agreements.

### **Key concepts**

- We may view the presence of bank or credit union deposit insurance from the FDIC or other U.S. government-related entities (GREs), or similar support mechanisms, for deposits at U.S. banks or similar financial institutions, such as credit unions, that are not rated as supportive of money fund NAV stability.
- We generally look to the insurance or similar support from a U.S. GRE with at least "very high" likelihood of extraordinary support as being supportive of credit quality within the PSFR criteria.
- FDIC deposit insurance or similar eligibility limits typically create a natural incentive toward bank diversification.
- In addition, the nature of FDIC insurance or similar U.S. GRE support mechanisms results in additional operational elements we consider as part of our management assessment.

**168.** The sections of the PSFR criteria to which this relates include:

- Our description of rating caps due to "higher-risk investments" (see Rating caps section)
- Quantitative metrics applicable to PSFR ratings (table 1)
- Our description of limited liquidity (see Liquidity section)

### **Overview**

**169.** In the Liquidity section of the PSFR criteria, we note that certain insured deposits have limited liquidity when having maturity greater than overnight, including "Pooled bank deposit programs (e.g., Certificate of Deposit Accounts Registry Service [CDARS], Deposit Liquidity Accounts, Insured Network Deposits, and Federally Insured Cash Accounts [FICA]) with a maturity of more than one business day. These nonmarketable securities typically impose fees for early withdrawal, and they may experience a delay in receiving Federal Deposit Insurance Corp. insurance payments." **170.** Fund exposure, in aggregate, to investments with limited liquidity is limited to 10%. If the deposits are held at a rated bank (or other rated financial institution), we apply table 1 (and the other relevant tables) and apply our rating on the bank unless the rating falls below the eligibility criteria for the rating on the fund. When the rating on the bank falls below the minimum sufficient level to support the current fund rating, as described in table 1 (and the other relevant tables), we apply the criteria as described in this guidance when insurance is present.

**171.** Overnight deposits are less exposed to liquidity risk because they either mature and cash is remitted to the fund, or the bank defaults on its obligations. The criteria provide specific thresholds associated with PSFR rating categories for credit quality, asset maturity, and asset diversification, each summarized in table 1 (and the other relevant tables) and referred to as PSFR quantitative metrics. We view these as supportive of NAV stability.

## **Credit quality**

**172.** We consider the impact of credit quality of deposit investments based upon the rating on the deposit bank. When the bank is not rated, we consider if any credit substitution is applicable--for example, due to the presence of guaranties (see "Guaranteed Investments" in the Credit Quality section of the PSFR criteria").

**173.** When the deposit bank is not rated, and if there is no guaranty or similar credit substitution, deposit investments may benefit from insurance--for example, deposit insurance. When insurance is relevant, we assess whether we can substitute the creditworthiness of the insurer for that of the bank when we apply the criteria. When investments benefit from insurance from a commercial insurer, we may substitute their creditworthiness for that of the bank when the insurer considers its

obligation under the policy as equal in priority to its senior-most obligations and agrees to pay without delay. When considering the credit substitution from a commercial insurer, we typically would reference the insurer's financial enhancement rating (FER) as evidence of the commitment to comply with the urgent timing requests associated with this type of financial insurance.

**174.** A fund may elect to invest in U.S. deposits that are not commercially insured but rather insured by a U.S. GRE with at least "very high" likelihood of extraordinary support from the U.S. government. This is often the case for funds that elect to invest in pooled bank deposit programs, some of which are provided as examples in the criteria.

175. FDIC deposit insurance eligibility limits create a natural incentive toward bank diversification. To determine diversification when funds invest in pooled bank deposit programs, we assume the limits are naturally creating effective diversification, but we do assess the pooled bank deposit program administrator's ability to look through to the banks taking the deposits and their ability to periodically report these exposures to fund managers. We assess the fund manager's ability to periodically aggregate bank exposure across pools when funds invest through more than one pooled bank deposit program. The fund's ability to periodically aggregate across programs and confirm quantitative metrics such as diversification limits are maintained when looking through the deposit programs is an important consideration to our management assessment as described below. For example, if a fund were to exceed the deposit insurance limit when separate investments are aggregated, this would render the excess amount as a higher risk investment unless the amount exceeding the FDIC limit benefits from a different credit enhancement that gualifies for credit substitution as described in the criteria.

176. To determine credit quality when funds invest in pooled bank deposit programs and credit substitution is not applicable from a guarantor or similar commercial entity, we recognize the presence of insurance or similar support from a U.S. GRE with at least "very high" likelihood of extraordinary support from the U.S. government. As with other forms of insurance, the credit substitution is sometimes less effective than when stemming from other types of financial enhancement, such as bankissued letters of credit (LOCs), due to potential timing delays or possible rejection of claim. Nevertheless, when we apply the PSFR criteria, overnight investments benefiting from insurance from U.S. GREs with at least "very high" likelihood of extraordinary government support would receive the same treatments as "concentration eligible" GREs as described in the PSFR criteria. Our view could change if we determine that there is not at least "very high" likelihood of extraordinary support from the U.S. government. Due to nature of insurance, potential liquidity and credit risk remain, and we address it through our review both of the fund management and of the pooled bank deposit provider as described below.

**177.** We assess operational competence by viewing a pooled deposit program's strength when frequent and detailed reporting of underlying bank exposure is possible and reviewed periodically by fund management. It is this competence that enables our view of effective diversification. We still consider diversification as relevant because there remains the risk that a bank will fail to repay its deposit and the FDIC may delay or even reject payment. We view the likelihood of fund NAV stability as greatly enhanced through increased diversification of the underlying banks because we do not assume that multiple events will occur to regulated banks in the same week or month such that the FDIC would withhold or delay payment for multiple deposit investments. This is why we assess the operational effectiveness of the pooled bank deposit administrator and the ability of the fund manager to periodically observe the underlying bank deposit investments.

## Liquidity

**178.** We understand the FDIC's goal to make deposit insurance payments within two business days of the failure of the insured institution; however, FDIC insurance payments may be delayed. In our fund analysis, we generally assume a potential delay of an additional day or two due to the timing of making a claim. As such, we generally assume FDIC payment will be available in time for a fund to use the money to meet a fund redemption request within five business days. We assess a fund's liquidity management in light of the risk of possible delayed payment from the FDIC or other insurer. We assume a stress scenario that at least one bank's FDIC insured deposit will be delayed and, as noted in the criteria, we assess management's ability to meet fund redemption requests in typical and stress scenarios.

### Management and operational review

**179.** There are programs whose business objective is to collect funding from entities such as money funds and place them on deposit with banks that meet the program's eligibility criteria, one of which is that the deposits are FDIC-insured. Consistent with how we describe application of the criteria above, we assess the operations of these programs to determine how consistent the program guidelines and operations are with our criteria. Among other aspects of program operations, we typically consider:

- Program management operational ability to manage consistent with the criteria;
- Program management operational historical operations and, if the program is new, we assess the experience of the program administrators with this type of operational responsibility;
- Management experience with regard to administering the program;
- Program management's track record of failure to invest in eligible deposit accounts--i.e., amounts over the insurance limit;
- Program management operational expertise with regard to payment timing and mechanics;
- Program management operational track record;
- Any information informing the treatment of or potential delay in access to fund investment if it is caught up in a failure of a relationship bank through which funds are subsequently distributed to underlying local and regional banks;
- Program documentation; and
- Any other information we view as helpful to understand the competence of the program administrator.

**180.** We note our view of the program as part of our review of fund management. We may assign a financial program rating where applicable--for example, when the program is not simply a leveraging of the FDIC's implicit credit quality.

# 5. Indemnities

Key concept: We may view properly structured indemnity agreements as substitutes for guarantees and supportive of money fund NAV stability when we apply the PSFR criteria. **181.** The sections of the PSFR criteria to which this relates include guaranteed investments PSFR Quantitative Metrics (table 1).

**182.** Some financial institutions have increasingly focused on alternatives to traditional LOCs and similar contracts to enhance debt issues or other investments S&P Global Ratings doesn't already rate and may provide an indemnity--such as a deed of indemnity--in lieu of an LOC. When presented with such an alternative, we review the documentation associated with the indemnity by applying "<u>Guarantee Criteria</u>," Oct. 21, 2016, to assess if the indemnity is equivalent to a guaranty and, if so, to determine if credit substitution is achieved.

**183.** Optimally, in addition to credit substitution, an indemnity achieves the same timing mechanics as do LOCs. However, it is possible that an indemnity is structured such that (a) a claim must be made by the fund against the indemnity and (b) the indemnity pays the difference owed back to the fund with regard to its investment after determining the value (typically through liquidation) of collateral assets (which are eligible investments under the fund's investment guidelines) and which are tied to the backstop provided under the indemnity. The first condition introduces operational risk because it introduces operation dependency to the fund manager to make a claim. This is typically not present in guarantees. We accept this risk because we assess management as part of fund ratings. The second condition introduces liquidity risk to the fund since the fund manager must incorporate the potential delay in receiving funds. We incorporate the manager's approach to incorporating this risk in our review of management.

**184.** We do not view the combination of contract and asset as a liquid investment if the fund is responsible for selling the collateral assets as part of the structure. In addition, we view these agreements as entirely tied to the initial provider of the indemnity and generally not

transferrable. However, we do not allocate this exposure to the list of assets with limited liquidity (the "illiquid basket") when the collateral is composed of assets we do view as liquid and when the provider of the indemnity or other third-party is obligated to liquidate collateral so as to make proceeds available to the fund promptly based upon our review of the agreements and liquidation mechanics.

**185.** Given the timing mechanics require a liquidation of collateral assets or similar method to determine the amount payable, monies may be received by the fund on a delayed basis. This means we assess the fund management's approach to liquidity management since funds may be received after the initial payment date. This means this type of credit enhancement is more complicated relative to that of a traditional LOC or guarantee.

**186.** We view the maturity as that of the last payment date monies are able to be paid under the indemnity. We consider management's approach as far as how they manage their liquidity resources given the potential payment delay when this is a feature of indemnities.

**187.** When considering portfolio asset diversification (and concentration) we consider the credit substitution provider as the obligor, and we typically aggregate all obligations of credit substitution obligors and then aggregate with any investments in obligations issued by those obligors.

# **REVISIONS AND UPDATES**

We released this article on July 26, 2024, following the publication of our new criteria for determining ratings-based inputs (see " <u>Methodology For Determining Ratings-Based Inputs</u>," published July 26, 2024), which was subject to our request for comment process. In this new version, we updated the rating inputs we apply to our PSFR analysis throughout this article to conform with the principles of the new criteria.

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- Financial Institutions Rating Methodology, Dec. 9, 2021
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