S&P Global Ratings

Research

General Criteria:

Methodology For Determining Ratings-Based Inputs

July 26, 2024

These criteria are effective July 26, 2024, except in jurisdictions that require local registration. In those jurisdictions, the criteria are effective only after the local registration process is completed.

For information about the initial publication of this article as of July 26, 2024, including key changes to our general approach and to affected sector-specific criteria, the impact on ratings, and superseded criteria, see "Criteria Released To Clarify Method For Determining Ratings-Based Inputs."

This criteria article presents the principles S&P Global Ratings applies when assessing the creditworthiness of assets or entities it doesn't rate, where this information is required to inform its rating analysis. They include the way we incorporate ratings from other credit rating agencies (CRAs). The application of these principles, which are materiality-based, is documented in our sector-specific criteria and guidance, which have been updated to reflect the changes we've introduced in this article.

METHODOLOGY

Overview

The methodologies we use to generate our credit ratings on issuers (or issues) may require us to assess the credit quality of their underlying exposures. In cases where we don't have an S&P rating on them to use as an input to our analysis, we may determine a rating input reflective of their credit risk using alternative means that will depend on the materiality of the inputs to our analysis and the information available to us.

In some of these cases, it may be appropriate for us to consider using a rating from another CRA as an input for the creditworthiness assessment. At the same time, in our credit ratings process, we seek to assign ratings, through the application of our own methodologies, that are consistent with our ratings definitions and that reflect our credit opinions.

We determine rating inputs in our analysis based on their materiality to our final rating outcome. Exposures for which we use rating inputs generally fit into one of these three broad categories:

- Substantial rating drivers: Undiversified or concentrated exposures, the credit quality of which is a substantial or sole driver of our rating outcome;
- Primary rating drivers: In a diversified pool of exposures that can have a material impact on our

ANALYTICAL CONTACTS, STRUCTURED FINANCE

Belinda Ghetti
New York
+ 1 (212) 438 1595
belinda.ghetti@spglobal.com

ANALYTICAL CONTACT, BOND INSURANCE

David S Veno
Princeton
+ 1 (212) 438 2108
david.veno@spglobal.com

ANALYTICAL CONTACT, INTERNATIONAL PUBLIC FINANCE

Alexander Ekbom
Stockholm
+ 46 84 40 5911
alexander.ekbom@spglobal.com

ANALYTICAL CONTACT, U.S. PUBLIC FINANCE

Lisa R Schroeer
Charlottesville
+ (434) 529-2862
lisa.schroeer@spglobal.com

ANALYTICAL CONTACT, MANAGED FUNDS

Andrew Paranthoiene
London
+ 44 20 7176 8416
andrew.paranthoiene@spglobal.com

METHODOLOGY CONTACTS

Claire K Robert
Paris
+ 33 14 420 6681
claire.robert@spglobal.com

See complete contact list at end of article.

rating, rating inputs that are primary, but not substantial, drivers of our rating analysis; and

- Secondary rating drivers: In a diversified pool of exposures where the analysis of those exposures is only one of several building blocks of the final rating, rating inputs that have limited materiality to the final rating outcome.

In addition, further considerations may apply when inputs are used to determine our assumptions for potential asset price movements, or otherwise, as part of our analysis of liquidity risks in a diversified pool. These further considerations can apply for both primary and secondary rating drivers.

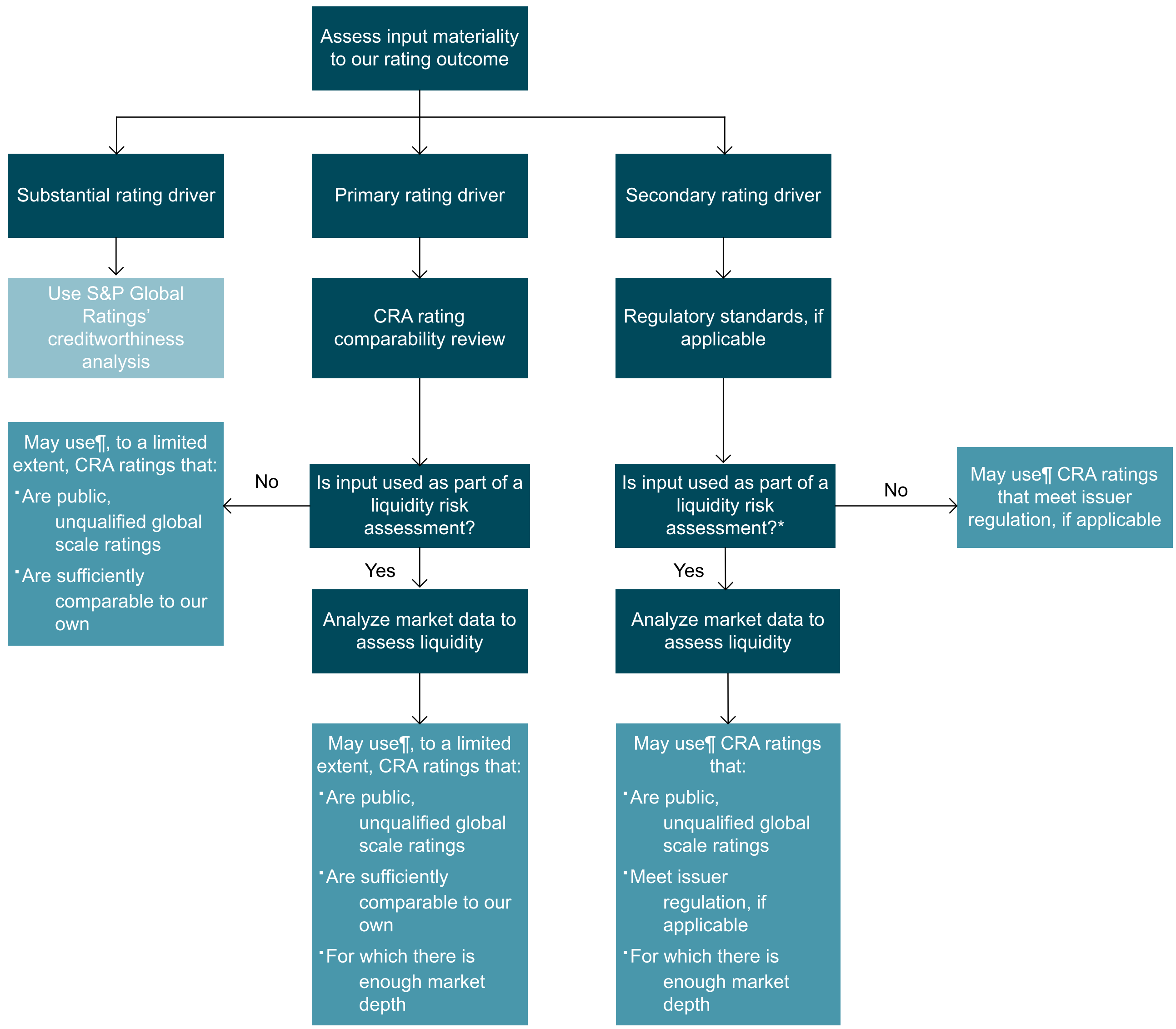
The characteristics of each category inform the type of analysis we may conduct for the purpose of determining rating inputs and/or the sources of information we may use in our analysis under applicable criteria. Typically, the more material the rating input is to our rating analysis, the more specific the information we consider in determining our rating input.

In certain cases, which we describe further in these criteria, we may incorporate the rating from other CRAs as a rating input to our analyses (see chart 1). To do so, the following general principles apply, regardless of materiality:

- We consider CRA ratings that issuers or transaction parties make available to us as part of the rating process.
- We may incorporate ratings issued by CRAs that are 1) registered or certified in accordance with relevant CRA regulations, and 2) included in a publicly available mapping table that one or more regulators use in establishing capital requirements for credit assets and that relates the CRA's rating scale to S&P Global Ratings' global rating scale (regulatory mapping).
- Whenever CRA ratings are incorporated into our analysis, we use their S&P Global Ratings equivalent rating input without adjustment, as informed by relevant regulatory mappings. Examples of such regulatory mappings include, but aren't limited to, those produced by the National Association of Insurance Commissioners (NAIC) and used by state insurance regulators in the U.S. and those determined by the European Supervisory Authorities for use in applying prudential regulation in the European Union.
- When more than one CRA rating is made available to us to be used as a rating input, we typically use the lowest equivalent rating input.
- In some sector-specific criteria, when S&P Global ratings are on CreditWatch, we use the rating level immediately above or below, as appropriate. This is to reflect the likelihood of such a rating action. Under those same sector-specific criteria, we treat similarly another CRA's rating that's on the CRA's equivalent of our CreditWatch.

Chart 1

Framework overview



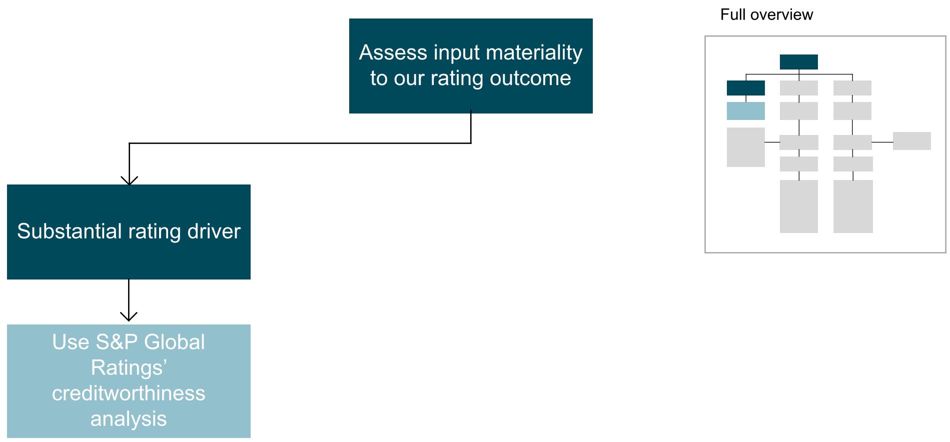
*To assess the liquidity risk for certain regulated issuers, for example insurers, we would apply our sector-specific criteria instead of this approach. ¶For the avoidance of doubt, when we have an S&P credit opinion, we would use it to inform our rating input. Source: S&P Global Ratings.

Substantial Rating Drivers

Chart 2

Substantial rating drivers

Undiversified or concentrated exposures, the credit quality of which is a substantial or sole driver of our rating



Source: S&P Global Ratings

For exposures that are substantial or sole drivers of our rating, we solely use our own credit views. Our sector-specific criteria describe which type of rating input is used in each case, for example S&P ratings or credit estimates. We do not consider incorporating a third party's credit opinions, including those produced by another agency, for one of these sole or substantial drivers of our analysis because this would result in our rating effectively reflecting that other opinion instead of our own. This includes situations where:

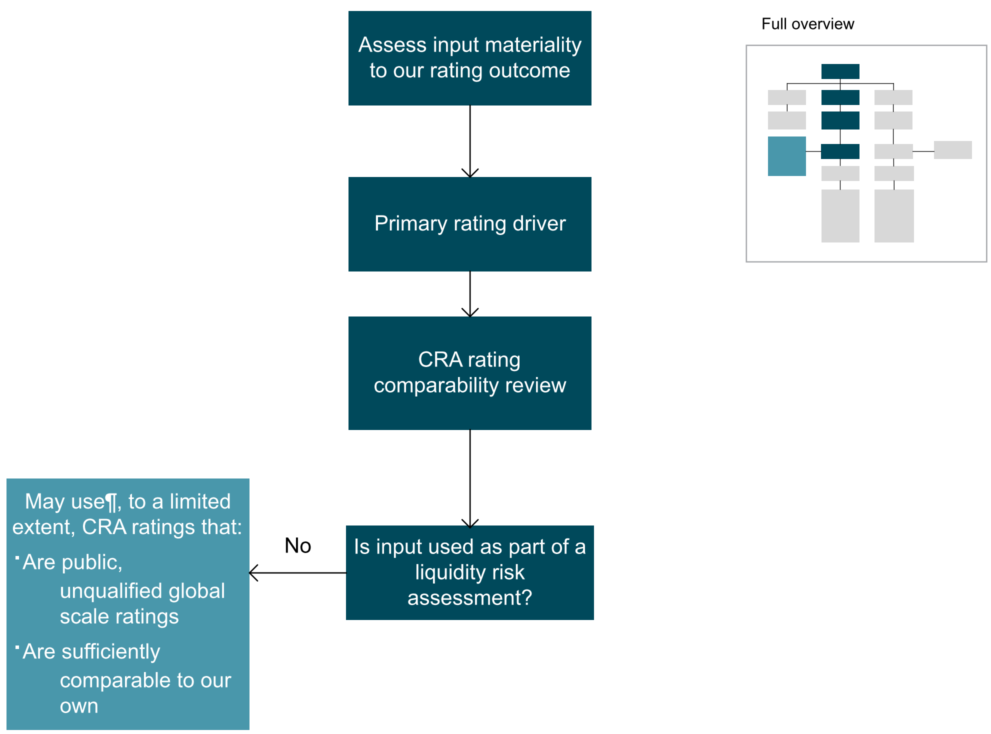
- The issued security's creditworthiness is aligned with that of an underlying source of risk, such as with repackaged securities, credit-linked notes, tender option bonds, loan participation notes, funding agreement-backed notes, and insurance-linked securitizations.
- Creditworthiness is substantially driven by an underlying source of risk (corporate securitizations, future flows, and covered bonds, for example) or generally depends on it (such as with certain counterparty and operational risks).
- The credit quality of low-diversity exposures influences the assessment of credit enhancement levels in structured finance--for example, the originator's creditworthiness in the assessment of purchase and payment rate in credit card ABS; and
- A limited number of exposures substantially drive our rating analysis--for example, this is generally the case when largest obligor tests or similar concentration floors drive the rating outcome.

Primary Rating Drivers

Chart 3

Primary rating drivers

In a diversified pool of exposures that can have a material impact on the rating, primary rating drivers are rating inputs that are primary, but not substantial, drivers of our rating analysis.



¶For the avoidance of doubt, when we have an S&P credit opinion, we would use it to inform our rating input. Source: S&P Global Ratings.

Diversified pools that are typically found in structured finance transactions and fund credit quality structures--as well as those insured by bond insurance entities--are examples of primary rating drivers.

For exposures that we view as primary rating drivers, we may consider a broader range of rating inputs than we do for substantial rating drivers, depending on sector-specific criteria. For example, in addition to S&P ratings and credit estimates, we may consider rating inputs mapped from an originator's internal score (see our mapping criteria in the Related Criteria section) or that reflect our sector views. For these exposures, we may also consider the use of other CRA ratings in our analysis.

In these instances, because the rating inputs are material to our credit analysis, we may incorporate CRA ratings to inform our work if, in addition to the conditions laid out in the "Overview" section:

- They are public, unqualified, global-scale ratings; and
- They have been issued by CRAs with ratings that we periodically assess as being sufficiently comparable to our own ratings, using quantitative data, qualitative data, or both, as appropriate (see the "CRA Rating Comparability Review" section).

In addition, we limit those inputs in our credit analysis to a level such that our rating outcome reflects our credit opinion (see the "Bucket limits" section).

For primary rating driver exposures rated by CRAs that may be outside of this framework, we determine the inputs, based on information made available to us and considering their impact on the ratings analysis. For example, we could use credit estimates or sector analysis or consider other data sources, including ratings-related information from other CRAs pertaining to the exposure.

CRA Rating Comparability Review

For primary drivers of our rating analysis, to incorporate another CRA's ratings as inputs, we first assess whether they are sufficiently comparable to our own given the materiality of primary drivers in the generation of our credit ratings. As noted, the ratings we assign constitute our opinion of creditworthiness, in line with our ratings definitions, which are benchmarked to specific degrees of rating stress.

If we were to incorporate other CRA ratings that are calibrated to materially different assumptions, the ultimate rating we assign could materially deviate from our own ratings definitions and stress benchmarks. As a result, our approach enables us to incorporate other CRA ratings into our analysis if the ultimate ratings we assign remain consistent with our ratings definitions.

When we review the comparability between our credit ratings and another CRA's ratings, we conduct an analysis of the ratings the CRA assigns, generally on a broad sector level (see chart 4). We consider both historical ratings performance (historical default and transition analysis) and a review of issuers or issues that carry ratings from us and the other CRA (overlapping ratings analysis), based on information made available to us:

- The historical default and transition analysis generally allows us to understand variations among ratings behavior, methodologies, ratings definitions, and overall ratings comparability.
- The overlapping ratings analysis enables us to assess the percentage of overlapping ratings being lower, the same, or up to three notches higher than our ratings.

Chart 4

Reviewing ratings comparability

Historical default and transition analysis	Overlapping ratings analysis
• Assesses whether historical data is sufficient for us to observe ratings behavior through economic stress with a meaningful sample size in each year	• Considers whether there's a meaningful sample of issuers or issues with overlapping ratings
• Reviews historical default rates and may examine other factors--such as transition, stability, and withdrawal rates--for comparison with our own	• Assesses whether the overlapping sample is sufficiently representative of the assets without our ratings and, if needed, may be supplemented through the review of credits we don't rate
• Considers the ranking power (Gini coefficients) of the rating scale for additional insights on ratings comparability	• Assesses whether the overlapping percentages approximately reflect historical observations of at least 80%, 90%, and 95% of the other CRA ratings no higher than one, two, and three notches, respectively, above our own

Source: S&P Global Ratings

Nonetheless, we may choose to conduct our own creditworthiness assessments when we believe that the nature of the exposure risk requires more extensive analysis. For example, this could be the case if an issuer includes significant exposure concentrated in a subsector that we believe could feature specific risk factors or that might not have been extensively represented in the sector data we reviewed as part of our comparability review.

Bucket limits

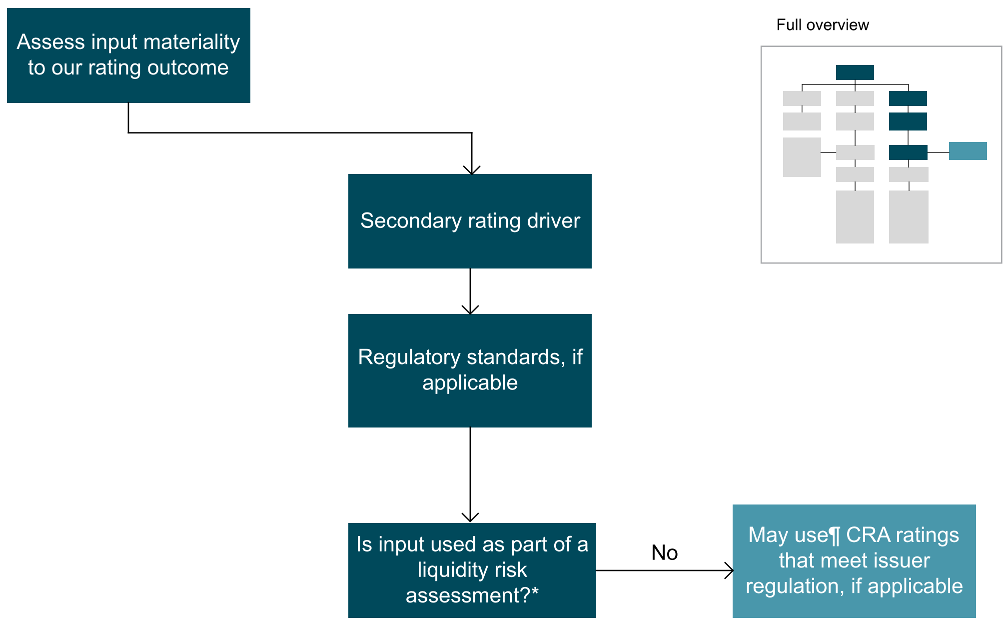
For primary rating drivers, we also limit the use of other CRA ratings to a certain proportion of the pool of exposures--typically lower than 50% (see sector-specific criteria for further details on applicable bucket sizes). These limitations ensure that the rating we assign remains the reflection of our own credit opinion, in line with our ratings definitions. The size of these buckets may vary by sector-specific criteria, asset types, and issuers and depends on the way the inputs are used. The bucket limitations reflect the sensitivity of our rating outcomes to potential movements in the other CRA ratings used as rating inputs. As a result, they generally depend on factors such as the weight in our rating of the analysis using CRA inputs, the other factors we consider in our analysis, the credit quality of the exposures, and the degree of asset granularity.

Secondary Rating Drivers

Chart 5

Secondary rating drivers

In a diversified pool of exposures where the analysis of those exposures is only one of several building blocks of the final rating, secondary rating drivers are rating inputs that have limited materiality to the final rating.



*To assess the liquidity risk for certain regulated issuers, for example insurers, we would apply our sector-specific criteria instead of this approach. ¶For the avoidance of doubt, when we have an S&P credit opinion, we would use it to inform our rating input. Source: S&P Global Ratings

Secondary rating drivers are typically exposures that are part of a diversified pool, and their analysis is one of several building blocks of the final rating, or they're exposures that have an indirect and limited impact on the final rating. Accordingly, for exposures we view as secondary rating drivers, we may incorporate a broader range of information for determining rating inputs than we may typically consider for primary drivers because their materiality to our rating outcome is lower.

For example, under our criteria for assessing insurer risk-based capital adequacy and determining the rating input for credit risk, we may determine rating inputs based on credit measures approved by the insurer's domestic regulator--such as the NAIC's designations assigned by Securities Valuation Office in the U.S.--as well as insurers' internal credit scores that are mapped to credit quality steps under Solvency II and accepted for the determination of capital requirements by the insurer's regulator. This is because insurance portfolios are made of many assets, and the credit risk of the portfolio is one of several risks incorporated into our assessment of insurer risk-based capital adequacy (see "Insurer Risk-Based Capital Adequacy--Methodology

And Assumptions," Nov. 15, 2023). Risk-based capital adequacy is one input in our methodology for rating insurance companies (see "Insurers Rating Methodology," July 1, 2019).

We may also be able to incorporate a larger universe of CRA ratings than we do for primary rating drivers, provided they meet the conditions laid out in the Overview section of these criteria because of these exposures' more limited impact on our rating. For assets rated by CRAs that may be outside this framework, we determine the inputs based on information available to us and considering their impact on the ratings analysis.

For example, in commercial mortgage-backed securities, the weight of property insurer inputs to the final rating is generally limited, as insurance coverage payments are relied upon for payments to the rated notes only as second or third source of funds after a casualty. In this case, for property insurers that we don't have a credit opinion on, we may look more broadly to other CRA ratings.

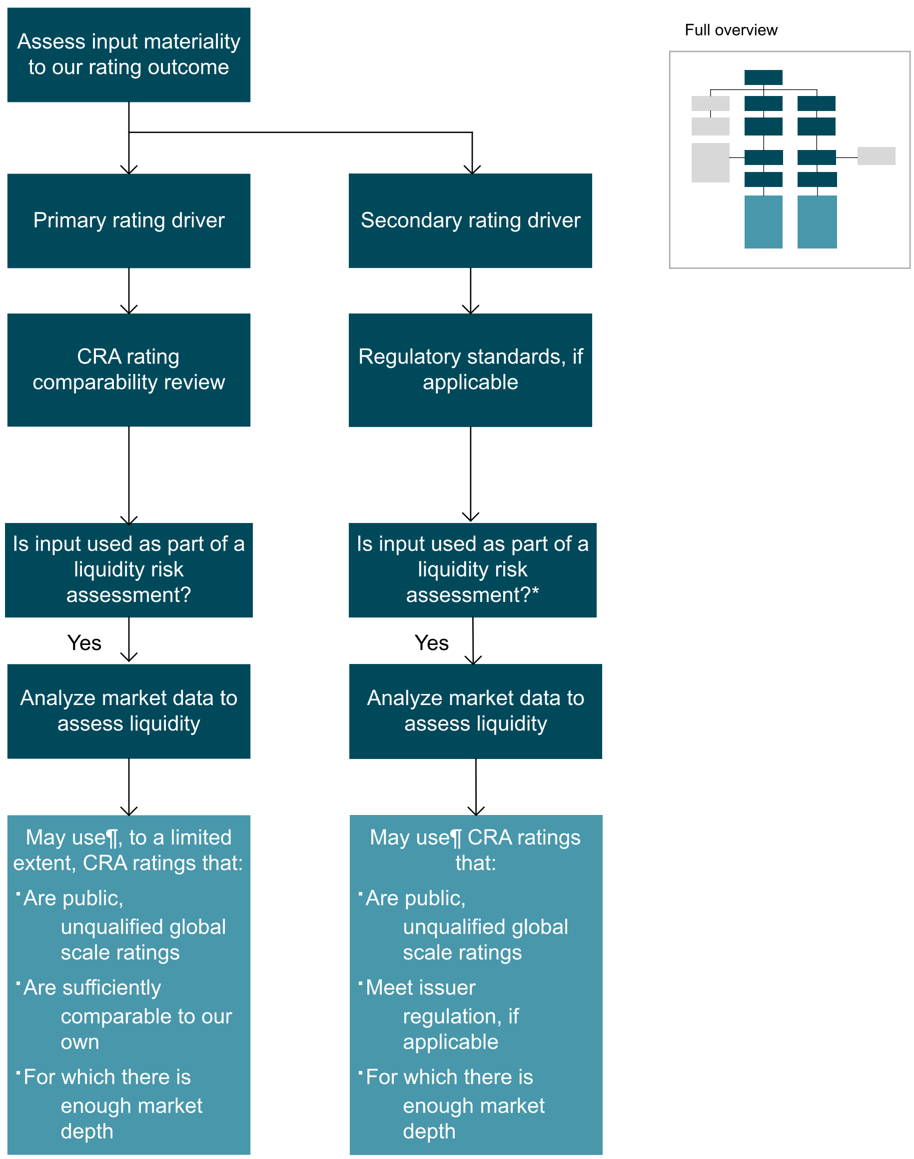
In our analysis of issuers subject to prudential regulatory oversight, such as insurers, we typically use CRA ratings that are approved for use in determining capital requirements under that issuer's applicable regulation.

In addition, we generally limit CRA-derived rating inputs in any given jurisdiction to a level no higher than what we usually assign in applying our ratings above the sovereign criteria in that country and sector to our ratings.

Additional Considerations For Liquidity Assessments

Chart 6

Additional considerations for liquidity assessments



*To assess the liquidity risk for certain regulated issuers, for example insurers, we would apply our sector-specific criteria instead of this approach. ¶For the avoidance of doubt, when we have an S&P credit opinion, we would use it to inform our rating input. Source: S&P Global Ratings.

In certain criteria, we may use rating inputs for assets in diversified pools to determine asset price haircuts or otherwise as part of our liquidity analysis. This is sometimes a primary driver in the analysis (principal stability fund ratings and market-value CDOs, for example) and sometimes a secondary driver (insurance, multilateral lenders, and public-sector funding agencies, for example).

In each case, we apply the general principles described in the sections for primary and secondary rating drivers (depending on whether we regard the asset or entity exposures as primary or secondary drivers) to determine rating inputs, consistent with the sector-specific criteria.

The principles described in each of these sections also apply to determine the CRA ratings that we may incorporate as rating inputs into our rating analysis, if applicable. In addition, regardless of whether they are primary or secondary rating drivers, we only use public, unqualified, global-scale ratings from CRAs for which data indicates sufficient market depth for assets rated by these agencies. This is because, here, the rating inputs are used not only to assess creditworthiness but also as a basis for assessing the liquidity of assets. To assess this, we consider:

- The existence of an actively traded index that includes assets rated by the other agency in the sectors in which the issuer will invest. This demonstrates the liquidity of assets carrying such ratings.
- Alternatively, the presence of information from broadly recognized data providers that demonstrate the existence of active trading markets for assets in the chosen sectors with ratings from that other agency (for example, based on trading volumes or bid/ask spreads).

Where liquidity assessment is a primary rating driver, we may also consider the lower rating from at least two CRAs on asset types that we view as less widely followed or transparent to trading markets, including for assets that carry a rating from S&P Global Ratings. An example is structured finance, where the investor base for any individual tranche is limited, the rating assumptions generally differ by agency, and market participants' access to information is more limited than for large, publicly listed companies.

Finally, we might apply an adjusted framework for the analysis of liquidity risk compared to the one described above for some sectors that are subject to prudential regulatory oversight. In such cases, we rely on the methodology described in the sector-specific criteria. An example is insurers, for which a potentially broader universe of CRA ratings may be used as rating inputs in our liquidity analysis, consistent with those used in our assessment of capital adequacy (see "Insurers Rating Methodology," July 1, 2019).

KEY CHANGES

This is a new criteria article that formalizes and restates the key guiding materiality-based principles we consider when using rating inputs in our rating analyses. Those are used to perform our rating analysis in accordance with the application of many of our sector-specific criteria.

In addition, we updated our approach to incorporating other CRA ratings into our analysis. Under this approach, when we use other CRA ratings, we do so without adjusting (notching) them, by considering the materiality of those inputs to our overall credit rating analysis. This is to ensure that the ultimate ratings we assign reflect our credit opinions and are consistent with our ratings definitions. In contrast, the previous approach generally involved adjusting other CRAs' ratings, based in part on a statistical analysis, to account for differences with our own ratings.

IMPACT ON OUTSTANDING RATINGS

These criteria led to changes to 21 criteria articles and one criteria guidance article (see "Criteria Released To Clarify Method For Determining Ratings-Based Inputs," July 26, 2024). We expect no ratings impact resulting from the application of such changes, except for:

- Fixed-income funds with fund credit quality ratings: We expect we could raise up to 10% of ratings by one notch.

RELATED PUBLICATIONS

Related Criteria

- Alternative Investment Funds Methodology, July 26, 2024
- CDOs And Pooled TOBs Backed By U.S. Municipal Debt: Methodology And Assumptions, July 26, 2024
- CDOs Of Project Finance Debt: Global Methodology And Assumptions, July 26, 2024
- CMBS Global Property Evaluation Methodology, July 26, 2024
- European CMBS Methodology And Assumptions, July 26, 2024
- Fund Credit Quality Ratings Methodology, July 26, 2024
- Global Auto ABS Methodology And Assumptions, July 26, 2024
- Global CDOs Of Pooled Structured Finance Assets: Methodology And Assumptions, July 26, 2024
- Global Methodology For Solar ABS Transactions, July 26, 2024
- Global Rating Methodology For Credit-Tenant Lease Transactions, July 26, 2024
- Insurance Criteria For U.S. And Canadian CMBS Transactions, July 26, 2024
- Methodology And Assumptions For Analyzing Bond Insurance Capital Adequacy, July 26, 2024
- Methodology And Assumptions For Market Value Securities, July 26, 2024
- Multilateral Lending Institutions And Other Supranational Institutions Ratings Methodology, July 26, 2024
- North America Railcar Lease-Backed ABS Methodology And Assumptions, July 26, 2024
- Principal Stability Fund Rating Methodology, July 26, 2024
- Rating Methodology And Assumptions For Global CMBS, July 26, 2024
- Rating Methodology And Assumptions For Japanese CMBS, July 26, 2024
- U.S. Public Finance Long-Term Municipal Pools: Methodology And Assumptions, July 26, 2024
- U.S. Insurance Premium Loan Securitizations: Methodology And Assumptions, July 26, 2024
- U.S. Structured Settlement Securitizations: Methodology And Assumptions, July 26, 2024
- Insurer Risk-Based Capital Adequacy--Methodology And Assumptions, Nov. 15, 2023

- North American Real Estate Securitizations Backed By Triple-Net Leases: Methodology And Assumptions, Aug. 24, 2023
- Global Aircraft ABS: Methodology And Assumptions, March 10, 2023
- Insurers Rating Methodology, July 1, 2019
- Global Methodology And Assumptions For CLOs And Corporate CDOs, June 21, 2019
- Incorporating Sovereign Risk In Rating Structured Finance Securities: Methodology And Assumptions, Jan. 30, 2019
- Methodology And Assumptions For Rating North American Single-Tenant Real Estate Triple-Net Lease-Backed Securitizations, March 31, 2016
- Mapping A Third Party's Internal Credit Scoring System To S&P Global Ratings' Global Rating Scale, May 8, 2014
- Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- Refined Methodology And Assumptions For Analyzing Insurer Capital Adequacy Using The Risk-Based Insurance Capital Model, June 7, 2010
- Principles Of Credit Ratings, Feb. 16, 2011

Other Publications

- RFC Process Summary: Methodology For Determining Ratings-Based Inputs, July 26, 2024
- Criteria Released To Clarify Method For Determining Ratings-Based Inputs, July 26, 2024
- Questions And Answers About RFC On Proposed Framework For Determining Ratings-Based Inputs, Jan. 17, 2024
- Guidance: Global Methodology And Assumptions For CLOs And Corporate CDOs, June 21, 2019
- S&P Global Ratings Definitions, updated from time to time

This article is a Criteria article. Criteria are the published analytic framework for determining Credit Ratings. Criteria include fundamental factors, analytical principles, methodologies, and/or key assumptions that we use in the ratings process to produce our Credit Ratings. Criteria, like our Credit Ratings, are forward-looking in nature. Criteria are intended to help users of our Credit Ratings understand how S&P Global Ratings analysts generally approach the analysis of Issuers or Issues in a given sector. Criteria include those material methodological elements identified by S&P Global Ratings as being relevant to credit analysis. However, S&P Global Ratings recognizes that there are many unique factors / facts and circumstances that may potentially apply to the analysis of a given Issuer or Issue. Accordingly, S&P Global Ratings Criteria is not designed to provide an exhaustive list of all factors applied in our rating analyses. Analysts exercise analytic judgement in the application of Criteria through the Rating Committee process to arrive at rating determinations.

This report does not constitute a rating action.

Contact List

ANALYTICAL CONTACTS, STRUCTURED FINANCE

Belinda Ghetti
New York
+ 1 (212) 438 1595
belinda.ghetti@spglobal.com

ANALYTICAL CONTACT, BOND INSURANCE

David S Veno
Princeton
+ 1 (212) 438 2108
david.veno@spglobal.com

ANALYTICAL CONTACT, INTERNATIONAL PUBLIC FINANCE

Alexander Ekbom
Stockholm
+ 46 84 40 5911
alexander.ekbom@spglobal.com

ANALYTICAL CONTACT, U.S. PUBLIC FINANCE

Lisa R Schroeer
Charlottesville
+ (434) 529-2862
lisa.schroeer@spglobal.com

ANALYTICAL CONTACT, MANAGED FUNDS

Andrew Paranthoiene
London
+ 44 20 7176 8416
andrew.paranthoiene@spglobal.com

METHODOLOGY CONTACTS

Claire K Robert
Paris
+ 33 14 420 6681
claire.robert@spglobal.com

ANALYTICAL CONTACTS, STRUCTURED FINANCE

Winston W Chang
New York
+ 1 (212) 438 8123
winston.chang@spglobal.com

METHODOLOGY CONTACTS

Erkan Erturk, PhD
New York
+ 1 (212) 438 2450
erkan.erturk@spglobal.com

METHODOLOGY CONTACTS

Nik Khakee
New York
+ 1 (212) 438 2473
nik.khakee@spglobal.com

METHODOLOGY CONTACTS

Andrew M Bowyer, CFA
London
+ 44 20 7176 3761
andrew.bowyer@spglobal.com

METHODOLOGY CONTACTS

Lapo Guadagnuolo
London
+ 44 20 7176 3507
lapo.guadagnuolo@spglobal.com