MOODY'S
INVESTORS SERVICE

CROSS SECTOR
RATING METHODOLOGY

Notching Corporate Instrument Ratings Based on Differences in Security and Priority of Claim

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This rating methodology replaces the *Updated Summary Guidance for Notching Bonds, Preferred Stocks and Hybrid Securities of Corporate Issuers* published in February 2007. This update introduces guidance on notching for structural subordination and provides additional clarity on our approach to notching across different types of debt, including slightly revised guidance for the notching of preferred stock. The updated document also clarifies the issuers subject to the guidance in the methodology and provides an update of the observed historical differences in loss severities across types of debt used to help formulate notching guidance.

Summary

This methodology explains Moody's approach for making rating distinctions across the obligations of a single issuer or group of issuers that are part of a consolidated corporate legal structure based on differences in their security or priority of claim and, therefore, resulting differences in expected loss severities in the event of default.[1] In some cases, notching is guided by other published methodologies that have a narrower focus on a specific set of issuers.[2]

This document outlines the broad principles that are used to help guide rating committee judgments regarding notching decisions. Given these broad principles, the document also provides specific notching guidance for different types of debt that apply in most but not all circumstances. However, in assigning ratings we always evaluate issuer-specific circumstances and assign ratings based on all of the relevant factors, regardless of the debt type or the specific name given to a debt instrument. Examples where actual ratings may differ from the specific notching guidance include (i) unbalanced capital structures whereby a particular debt comprises a very small or large proportion of total debt, (ii) jurisdictions where legal regimes are less predictable, and (iii) where there is complexity either in the legal structure of the corporate organization or in the terms of the debt instruments, among other considerations.

THIS METHODOLOGY HAS BEEN UPDATED ON JULY 27, 2020. WE HAVE AMENDED AN INCORRECT REFERENCE IN EXHIBIT 2.

1 In addition to investment grade non-financial corporates and speculative grade non-financial corporates not covered by the loss given default methodology, this methodology also applies to corporate infrastructure issuers and the small number of financial corporate sectors where notching considerations are applicable and that do not have more specific notching in their sector methodologies.

2 For example, separate methodologies are used instead of or in combination with this document for banks, insurers and utilities to assign ratings across the liability structure and consider differences that include the impact of regulatory regimes. In addition a separate loss given default methodology is used instead of this document in making rating determinations across the liability structure of nonfinancial speculative-grade corporates in jurisdictions where legal outcomes are regarded as being reasonably predictable and likely to be consistent with priority of claim assumptions. A link to our sector and cross-sector methodologies can be found in the Moody's Related Research section of this document.

Notching for Differences in Loss Severity Arising from Differences in Security and Legal Priority of Claim

Moody's ratings on financial obligations of corporates and other fundamental issuers reflect our opinion of the risks of default and loss severity in the event of default for those obligations. Since when an issuer defaults on one debt obligation it usually defaults on all obligations, our notching analysis focuses on differences in each debt instrument's expected loss severity.

Instances in which the issuer defaults on some but not all debt instruments are considered implicitly by the recognition that there can be 100% recovery on some debt obligations in those cases where an issuer defaults selectively on just a portion of its obligations.[3]

Losses in an event of default will typically vary across an issuer's obligations, with relative differences in those losses depending mainly on 1) each obligation's priority of claim ranking within the issuer's capital structure at the time of default and 2) the total value available to be distributed across the holders of all obligations of the issuer.

In order to provide notching guidance based on different types of debts, two pieces of information are necessary: 1) estimates of relative loss severity in the event of default across different types of debt and 2) the implications of differences in loss rates for differences in rating notches. For any given debt rating, its notching is measured relative to a baseline rating of the issuer which is typically either the senior unsecured debt rating or, for speculative grade issuers, the Corporate Family Rating (CFR). Analysts typically assign this rating using an analytic approach described in sector-specific rating methodologies.

The specific notching guidance by type of debt included in this methodology is informed by historical differences in losses across types of debt, including senior secured debt, senior unsecured debt, and subordinated debt. However, there are limitations in referencing historical differences in recovery. These include high variability of individual recovery rates around averages, substantial variations in average recovery rates over time and a generally inverse relationship between average recovery rates and the severity of the credit environment. Accordingly, the notching guidance included in this document reflects these limitations and is not intended to be precisely predictive for actual relative losses in future default scenarios.

Gauging the Differential in Loss Severity Implied by a Rating Notch

For the purposes of the notching guidance in this methodology, and on the basis of historical average loss experience across corporate ratings at various horizons, a one notch downgrade can be thought of as generally implying an average 60% increase in expected losses for investment grade ratings (Aaa – Baa3) and generally implying an average 40% increase in expected losses for non-investment grade ratings (Ba1 and lower).

Historical Average Relative Loss Rates Across Debt Classes

As discussed above, Moody's specific notching guidance by debt types reflects observed historical differences in losses in the event of default across different debt types. The data in Exhibit 1 are from

[3] In many cases, when an issuer defaults on one security, it defaults on all its debt obligations, either as a result of cross-default clauses in its liability structure or because it enters bankruptcy proceedings in which an automatic stay on creditor claims is activated. However, issuers sometimes default only on selected debt issues, either because cross-default clauses are not activated, debtors do not avail themselves of their option to press for bankruptcy, or because the default takes the form of a distressed exchange rather than a missed payment.

Moody's Ultimate Recovery Database (URD) and show historical average relative losses for different types of debt across companies that had senior unsecured debt and at least one other type of debt outstanding at default.[4] For example, for companies with both senior unsecured debt and senior secured debt outstanding at the time of default, Exhibit 1 shows the average losses associated with a company's senior secured debt were approximately 85% lower than the losses on its senior unsecured debt. Similarly, for companies with both senior unsecured debt and subordinated debt at the time of default, the losses associated with a company's subordinated debt were approximately 50% higher on average than the losses on its senior unsecured debt. Importantly, these figures are for average relative losses and the variances of individual outcomes around these historical averages are high.

EXHIBIT 1

Historical Average Relative Losses

Approximate Average Percent Change in Loss Relative to Loss on Senior Unsecured Debt

Senior Secured Debt	-85%
Subordinated Debt	50%
Junior Subordinated Debt	70%

Source: Moody's Investors Service

Notching Guidance Based on Security and Legal Subordination

With consideration to the value of a rating notch discussed above and the historical average relative losses across different types of debt shown in Exhibit 1, Moody's analysts use the notching guidance shown in Exhibit 2 to make rating distinctions arising from security and subordination. The high variance around the average relative losses shown in Exhibit 1 is taken into account in this notching guidance. The guidance is expressed relative to an issuer's baseline rating, which is typically assigned using an analytical approach that is described in sector-specific rating methodologies, and which is typically either the senior unsecured rating or, for speculative-grade issuers, the CFR. In general, notching is capped at plus or minus two notches, but may be wider in unusual circumstances, such as when we have high confidence that expected recovery on a debt will be exceptionally high. Importantly, notching is always based on our assessment of the priority of the debt class, irrespective of the debt type or the specific name given to a debt instrument.

The notching guidance in Exhibit 2 represents actual notching in most but not all cases. Examples where notching may differ from the guidance shown in Exhibit 2 include (i) unbalanced capital structures in which a particular debt comprises a very small or large proportion of total debt, (ii) legal regimes that are less predictable, and (iii) complexity in the legal structure of the corporate organization or in the terms of the debt instruments, among other considerations. In such cases, rating committees evaluate the specific circumstances and assign the notching they believe to be most appropriate.

In some countries the bankruptcy code expressly grants rights to secured creditors over unsecured creditors but in practice these rights are not consistently enforced or observed. For issuers that Moody's believes are subject to such unreliable outcomes, rating committees usually determine that it is appropriate to notch more narrowly, for example, rating secured debt not more than one notch above unsecured debt or even at the same level as unsecured debt.

Additionally, our assessment of any structural feature that Moody's believes will result in materially higher recovery follows the same broad principles that are outlined in this methodology. For example, in unusual

4 The URD includes data on North American non-financial corporate defaulters since 1988. The relative recovery rates across debt types observed for such North American defaulters can be inferred as instructive for likely outcomes in other jurisdictions that have similar legal frameworks for insolvency.

cases where recovery is believed to be exceptionally high with high confidence (such as Aaa support), notching may be greater than the general guidance shown in Exhibit 2.

EXHIBIT 2

Notching Guidance Applicable in Most Cases

Baseline Rating Equals the CFR or Senior Unsecured Rating[5] [6]

Debt Type	Notches
Senior Secured Debt*	+ 1 or +2
Senior Unsecured Debt	0
Subordinated Debt**	-1 or -2
Junior Subordinated Debt**	- 1 or -2
Preferred Stock***	-2

*Plus one notch for issuers rated Baa3 or higher (CFR/SU).

Plus one to two notches for issuers rated Ba1 or lower (CFR/SU) and reliable bankruptcy regime.

**For issuers rated Ba1 or lower (CFR/SU), minus two notches if deeply subordinated and reliable bankruptcy regime. Otherwise, minus one notch.

***Minus two notches also applies to junior-most hybrid securities that may include both debt and equity characteristics. However, if a junior-most hybrid includes mandatory coupon skip triggers, then minus three notches (see footnote 10).

Source: Moody's Investors Service

Although the historical average recovery experience shown in Exhibit 1 suggests that senior secured debt could be notched up to three notches above the issuer's CFR or senior unsecured rating for issuers rated Baa3 or higher, the guidance is for only one notch. This guidance considers both 1) the high variance of individual outcomes around the average relative losses shown in Exhibit 1 and 2) that issuers rated Baa3 and higher are generally far from default with capital structures that are at risk of changing substantially as they move closer to a default event thereby weakening the priority position of secured lenders. In comparison, typical speculative grade secured debt structures are much more restrictive with regard to the incurrence of additional pari-passu secured debt and the quality of collateral, which strengthens the priority position of secured lenders. Additionally, a one notch downgrade for issuers rated Ba1 or lower implies a roughly 40% increase in expected losses versus 60% for investment-grade issuers. As a result, for issuers rated Ba1 and lower, the notching guidance for senior secured debt is 1-2 notches depending on such factors as the size of the debt cushion below the secured debt, the quality of the collateral and the reliability of the bankruptcy regime.[7]

The guidance for subordinated and junior subordinated debt is minus one notch for investment-grade issuers. However, for issuers rated Ba1 or lower, minus two notches is applicable in cases where the subordinated or junior subordinated debt is deeply subordinated (i.e., represents a small share of the issuer's total debt) and the bankruptcy framework is expected to produce reliable

5 The CFR is assigned to a corporate family as if it had a single class of debt and a single consolidated legal entity structure. Consequently, if a single security class of debt represents the clear majority of a family's total debt, the rating assigned to that debt will equal the CFR. For example, if the vast majority of the debt of a family is secured debt, the rating assigned to that secured debt will not be notched above the CFR but instead will equal it.

6 For entities that benefit from government or parental support, the notching may differ from the guidance if it is expected that the level of support will vary across different debt classes of the same issuer. For example, a hybrid security could potentially be notched down more than two notches from the issuer's senior unsecured rating if it is expected that support would be forthcoming for the senior unsecured debt but not for the hybrid security.

7 For issuers rated Ba1 and lower, in rare cases when the legal system is considered reliable, senior secured debt may be notched up three notches if the debt is extremely well secured and comprises a very small part of the capital structure.

outcomes that reflect priority of claim.[8] In some such cases, subordinated debt may take the role of preferred stock, particularly in markets where conventional preferred stock is not issued.

Preferred stock is typically notched down two notches irrespective of the issuer's senior unsecured rating or CFR, reflecting the historical experience of very high losses for such securities in debt default and impairment scenarios.[9] Similarly, junior-most hybrid securities that may include both debt and equity characteristics and which often behave similarly to common equity or preferred stock are typically notched down two notches from an issuer's senior unsecured rating or CFR. However, if a junior-most hybrid includes mandatory coupon skip triggers, then notching is typically minus three notches.[10]

Structural Subordination

Structural subordination affects differences in recovery across a capital structure in the same way as legal subordination, with similar implications for notching. This can be illustrated using a simple corporate structure where all assets and cash flow reside within a single operating company and the sole activity of the holding company parent is to hold the stock of the operating company. In most jurisdictions, under this simple structure, debt at the holding company has only a residual legal claim on the assets and cash flow of the operating company, such that its claim in bankruptcy is subordinate to the debt and all other liabilities at the operating company. Accordingly, for companies with such a capital structure, notching reflects a higher expected LGD for debt at the parent than for debt at its principal operating company.

Of course, legal corporate structures are frequently more complex and may include multiple operating companies or holding companies that have substantial investments beyond the stock of the main operating company(s). Under these more complex structures, notching for structural subordination may be inappropriate given that the potential benefits of credit diversification may lower expected credit losses on debt issued at the parent relative to debt issued at a particular operating company—thus mitigating or offsetting the need to notch for structural subordination. Also, subsidiary guarantees of holding company debt, if effective[11] and granted on a full and unconditional and equivalently ranked basis (e.g., secured guaranty for secured debt), can mitigate what would otherwise be structural subordination in their absence if the claim is a holding company obligation.

Additionally, notching for structural subordination may be inappropriate when holding companies themselves are owned or controlled by stronger entities and benefit from their owner's expected support in a distress scenario. For example, for holding companies owned by a government, support from the government may be expected to flow directly to the holding company rather than its main operating company, thereby mitigating or offsetting the need to notch for structural subordination.[12]

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8 For companies that have both subordinated and junior subordinated debt in the capital structure, if the capital structure and debt terms suggest that the losses on the junior subordinated debt are expected to be at least 40-60% higher than the losses on the subordinated debt, the guidance is for the subordinated debt to be rated one notch higher than the junior subordinated debt. Otherwise, the guidance is to assign the same rating to both classes of debt.

9 Ratings on preferred stock signal the likelihood of impairment, rather than default (since equity cannot default), and loss severity given impairment. See Moody's Ratings Symbols and Definitions for Moody's definitions of default and impairment.

10 Preferred stock and junior-most hybrid securities are typically notched down no more than two notches since a worst case scenario of 100% loss on these securities represents a maximum 100% increase in loss relative to the historical average firm-wide recovery of approximately 50%, which indicates a maximum of minus two notches based on the average historical value of a notch. However, if an issuer subject to this methodology were to issue a junior-most hybrid security that includes meaningful mandatory non-cumulative coupon skip triggers, the guidance is to rate such securities three notches below the senior unsecured rating, and more than three where the risk and potential severity of an impairment are viewed as exceptionally high. The rationale for this wider notching is our view that the probability of impairment for such securities is substantially higher than the probability of default for the issuer's debt, implying materially higher expected losses relative to preferred stock.

11 Upstream guarantees may not, in some jurisdictions, be enforceable in a bankruptcy under certain scenarios, for instance if the court determines that granting the guarantee rendered the subsidiary insolvent, or that the subsidiary did not receive reasonably equivalent value for granting the guarantee.

12 Depending on the nature of the support, such support could affect either the parent's probability of default and/or its expected LGD relative to those of the operating company.

When structural subordination is present under a simple corporate structure where all assets and cash flow reside within a single operating company and the sole activity of the holding company parent is to hold the stock of the operating company, the guidance for notching for structural subordination follows three steps:

1. The relevant sector or industry methodology(ies) is used to determine a reference rating for the corporate family. For speculative-grade issuers, this is typically the corporate family rating (CFR). For investment grade companies, it is typically a less precise concept that can be thought of as the predominant credit quality of the family—but recognizing that the complexity and international scope of investment grade companies, including tax and legal issues, often makes analytic speculative grade concepts such as the CFR less relevant.

2. Once the reference rating for the family has been determined, it is typically associated with (i.e., equal to) the senior unsecured debt rating of the legal entity in the family that has the preponderance of the total debt and debt-like claims of the family (typically those claims that would be allowable in a bankruptcy scenario).[13] For example, if a corporate family's reference rating is Baa2 and it has a preponderance of its debt and non-debt liabilities at the operating company level, the senior unsecured debt of the operating company would typically be rated Baa2. If instead a preponderance of total claims are at the holding company, the senior unsecured debt of the holding company would typically be rated Baa2.

3. Regardless of which legal entity is assigned the reference rating, the most junior debt of the operating company is generally rated one notch higher than the most senior debt of the holding company.[14]

Aside from the simple corporate structure scenario described above, as discussed, corporate structures can vary widely and are often unique. As a result, the guidance for notching for structural subordination under more complex corporate structures necessitates a principles-based approach that allows for consideration of unique structures and circumstances. For complex corporate structures, therefore, we typically assess whether the presence of structural subordination implies relative differences in expected credit losses across entities that are of a magnitude to warrant notching for structural subordination. The basis for that assessment is, as stated earlier in this methodology, that a one notch downgrade generally implies an average 60% increase in expected losses for investment grade ratings (Aaa – Baa3) and generally implies an average 40% increase in expected losses for non-investment grade ratings (Ba1 and lower).

Another important consideration aside from notching is financial flexibility. If a company introduces a material amount of debt at the operating company where none existed before, or introduces secured debt where all debt was previously unsecured, the resulting loss of financial flexibility could result in a downgrade of the credit assessment for the overall corporate family.[15] Any effect of diminished financial flexibility on the group's credit profile is typically considered relative to similarly rated peers. For example, in some sectors/regions, regulations or tax regimes may drive a higher percentage of debt at operating companies (in which case a quite material amount of debt may not weigh on the corporate family credit assessment); in others, operating company debt may be rare, driven primarily by a desire to lower consolidated borrowing

13 In assessing which entity best represents the overall creditworthiness of the family, rating committees would generally assess material revolving credit borrowings and pay-downs and may consider expected future debt issuance or repayment to determine which entity is likely to have the preponderance of claims in a potential bankruptcy.

14 Similar to notching for legal subordination, in some cases, debt at the parent may be rated two notches below the lowest rated debt at the operating company if the debt at the holding company is deeply subordinated and the bankruptcy regime is viewed as reliable. In contrast, if the bankruptcy regime is viewed as highly unreliable, the guidance is no notching for structural subordination, although in cases where the holding company debt is deeply subordinated one notch may be warranted. In rare cases, the most senior debt class of a holding company can be rated at the same level as the most junior debt of the operating company, when the latter is a deeply subordinated instrument.

15 This consideration is separate from the consideration of whether structural subordination is present.

costs despite the subordinating impact on holding company creditors (in which case, even relatively small amounts of operating company debt may weigh on the corporate family credit assessment).[16] [17]

Moody's Related Research

A list of potentially related sector and cross-sector credit rating methodologies can be found here.

Please refer to *Rating Symbols and Definitions*, which is available here, for further information.

16 In most jurisdictions and industries, investment grade companies predominantly finance with unsecured debt at the holding company. If necessary, these companies can raise additional financing or induce creditors to amend the terms of agreements by offering new arrangements with a direct claim on the operating company. A company that replaces holding company debt with debt at the operating company level, or unsecured debt with secured debt has reduced its financial flexibility and future financing options relative to similarly rated peers that finance with unsecured debt at the holding company level.

17 When the overall credit strength of the family is weakly (strongly) positioned at its current rating, a downgrade of the rating associated with the overall creditworthiness of the family likely requires a smaller (larger) change in the capital structure.

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