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2008 Corporate Criteria: Rating Each Issue

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*(**Editor's Note:** We originally published this criteria article on April 15, 2008. We've republished it following our periodic review completed on Dec. 11, 2016. As a result of our review, we updated the author contact information.*

This article is partially superseded by the following articles:

-- "Recovery Rating Criteria For Speculative-Grade Corporate Issuers," Dec. 7, 2016;

-- "Methodology: Jurisdiction Ranking Assessments," published on Jan. 20, 2016;

-- "Methodology: Use Of 'C' And 'D' Issue Credit Ratings For Hybrid Capital And Payment-In-Kind Instruments," published on Oct. 24, 2013;

-- "Update On Rating Methodology For Debtor-In-Possession Loans With Noncash Pay Features," July 30, 2009; and

-- "Notching Of U.S. Investment-Grade Investor-Owned Utility Unsecured Debt Now Better Reflects Anticipated Absolute Recovery," Nov. 10, 2008.)

Rating Each Issue

We assign two types of credit ratings--one to corporate issuers and the other to individual corporate debt issues (or other financial obligations). The first is called a Standard & Poor's corporate credit rating. It is our current opinion on an issuer's overall capacity to pay its financial obligations, i.e., its fundamental creditworthiness. This opinion focuses on the issuer's ability and willingness to meet its financial commitments on a timely basis. It generally indicates the likelihood of default regarding all financial obligations of the company, because, in most countries, companies that default on one debt type--or file for bankruptcy--virtually always stop payment on all debt types.

The corporate rating does not reflect any priority or preference among obligations. In the past, we published the "implied senior-most rating" of corporate obligors--a different term for precisely the same concept. "Default risk rating" and "natural rating" are additional ways of referring to this issuer rating.

(Generally, a corporate credit rating is published for all companies that have issue ratings--in addition to those companies that have no ratable issues, but request just an issuer rating. Where it is germane, both a local-currency and a foreign-currency issuer rating are assigned.)

We also assign credit ratings to specific issues. In fact, the vast majority of credit ratings pertain to specific debt issues. Long-term issue ratings are a blend of default risk (sometimes referred to as "timeliness") and the recovery prospects (LGD) associated with the specific debt being rated. Debt with relatively good recovery prospects--especially well-secured debt--is rated above the corporate credit rating; debt with relatively poor prospects for such LGD--especially junior debt--is rated below the corporate credit rating. Notching does not apply to short-term ratings (see "Commercial Paper").

Recovery ratings were added in 2003. These ratings address only recovery prospects, using a scale of one to six, rather than the letter ratings.

Notching Down; Notching Up

The practice of differentiating issues in relation to the issuer's fundamental creditworthiness is known as "notching." Issues are notched up or down from the corporate credit rating level. Payment on time as promised obviously is critical with respect to all debt issues. The potential for recovery in the event of a default--i.e., ultimate recovery, albeit delayed--also is important, but timeliness is the primary consideration. That explains why issue ratings are still anchored to the corporate credit rating. They are notched--up or down--from the corporate credit rating in accordance with established guidelines explained here.

As default risk increases, the concern over what can be recovered takes on greater relevance and, therefore, greater rating significance. Accordingly, the LGD aspect of ratings is given more weight as one moves down the rating spectrum. For example, subordinated debt can be rated up to two notches below a noninvestment grade corporate credit rating, but one notch at most if the corporate credit rating is investment grade. (In the same vein, issues of companies with a 'AAA' rating need not be notched at all.)

For investment-grade companies, we seek to differentiate those financial obligations judged to have materially inferior recovery prospects by virtue of being unsecured or subordinated--either contractually or structurally. Priority in bankruptcy is considered in broad terms; there is no attempt to specify a default scenario.

In the speculative-grade categories, we do seek to predict specific recovery levels based on full-blown default-scenario modeling. Because any default would presumably be less distant in time than for investment-grade companies, it is more reasonable to analyze a specific anticipated default scenario, with associated asset mix and realizable values. When such a rigorous recovery analysis is performed, we assign a recovery rating and base the notching on the specific outcome. We focus on a central tendency of approximately 50%. Therefore, issues with recovery rates significantly more than 50% are rated above the corporate rating; conversely, issues recovering significantly less than 50% are rated below the corporate rating.

Notching relationships' underlying issue ratings are subject to review and change when actual developments vary from expectations. Changes in notching do not necessarily have to be accompanied by changes in default risk.

Notching guidelines are a function of the bankruptcy law and practice in the legal jurisdiction that governs a specific instrument. For example, distinguishing between senior and subordinated debt can be meaningless in India, where companies may be allowed to continue paying even common dividends at the same time they are in default on debt obligations; accordingly, notching is not applied in India. The majority of legal systems broadly follow the practices underlying our criteria for notching--but it always is important to be aware of nuances of the law as they pertain to a specific issue.

Preferred stock

Preferred stock carries greater credit risk than debt in two important ways: The dividend is at the discretion of the issuer, and the preferred represents a deeply subordinated claim in the event of bankruptcy. Prior to 1999, we used a separate preferred stock scale. In February 1999, the debt and preferred stock scales were integrated.

Accordingly, now, preferred stock generally is rated below subordinated debt. When the corporate credit rating on a company is investment grade, its preferred stock is rated two notches below the corporate credit rating. For example, if the corporate credit rating is 'A+', the preferred stock would be rated 'A-'. (In case of a 'AAA' corporate credit rating, the preferred stock would be rated 'AA+'.) When the corporate credit rating is noninvestment grade, the preferred stock is rated at least three notches (one rating category) below the corporate credit rating. Deferrable payment debt is treated identically to preferred stock, given subordination and the right to defer payments of interest.

There are situations in which the dividend is especially jeopardized, so notching would exceed the guidelines above. For example, state charters restrict payment when there is a deficit in the equity account. This can occur following a write-off, even while the company is healthy and possesses ample cash to continue paying. Similarly, covenants in debt instruments can endanger payment of dividends, even while there is a capacity to pay.

In all cases, the risk of deferral of payments is analyzed from a pragmatic, rather than a legal, perspective. If a company defers a payment or passes on a preferred dividend, it is tantamount to default on the preferred issues. The rating is changed to 'D' once the payment date has passed. The rating usually would be lowered to 'C' in the interim, to the extent nonpayment can be anticipated--e.g., if the company were to announce that its directors failed to declare the preferred dividend. Whenever a company resumes paying preferred dividends but remains in arrears with respect to payments it skipped, the rating is, by definition, 'C'.

Convertible preferred/equity units

Some securities provide for mandatory conversion into common stock of a company. Such securities vary with respect to the formula for sharing potential appreciation in share value. In the interim, these securities represent a subordinated debt or preferred stock claim. Other offerings package a short-life debt or preferred stock with a deferred common stock purchase contract to achieve similar economics.

Ratings on the issue address primarily the likelihood of interim payments and the solvency of the company at the time of conversion to enable it to honor its obligation to deliver the shares. These ratings do not address the amount or value of the common stock investors ultimately will receive. The equity risk that pertains is reflected merely by limiting the rating to the equivalent of the company's preferred equity securities. (We once highlighted this risk by appending an 'r' to the ratings of these hybrid securities, but now rely on the market's familiarity with such instruments and their terms.)

Reflecting Recovery In Issue Ratings

If we can confidently project recovery prospects exceeding 70% for an individual security, that issue is typically rated higher than the corporate rating; conversely, if we project recovery for a given security to be under 30%, the issue is typically rated lower than the corporate rating. When we cannot confidently model absolute recovery because of jurisdictional issues or because the corporate credit rating is investment-grade and the issue is unsecured, we notch down when a debt issue's junior standing, relative to other debt issues of the company, indicates relatively poor recovery prospects.

The weighting of recovery aspects in issue ratings also varies as the potential for default becomes more meaningful, as explained below.

Investment grade

For investment-grade companies, notching relationships are based on broad guidelines that combine consideration of asset protection and ranking. The guidelines are designed to identify material disadvantage for a given issue by virtue of the existence of better-positioned obligations. The analyst does not seek to predict specific recovery levels, which would involve knowing the exact asset mix and values at a point well into the future. Therefore we do not generally perform a fundamental recovery analysis, given the difficulty of doing meaningful default scenario analysis while the company is still so strong.

(For example, we would not presume that default occurs while the company's capital structure remains roughly the same--as we generally do in the recovery analysis of speculative grade companies. With respect to currently strong credits--with relatively unburdened balance sheets--such an approach would be inappropriate. Indeed, currently, we typically do not assign recovery ratings on debt issues of investment-grade corporates--with the exception of utility first mortgage bonds.)

Rather, we use a rule-of-thumb approach to identify debt issues with inferior recovery prospects--or, for consideration of adding notches, we use discrete asset valuations if there is collateral (modified somewhat in the case of regulated utilities).

Rating below the corporate credit rating: "Notching down"

When a debt issue is judged to be junior to other debt issues of the company, and thereby to have relatively poor recovery prospects, that issue is notched down from the corporate credit rating. As a matter of rating policy, the differential is limited to one rating designation in the investment-grade categories given the critical role of timeliness for investment grade debt. LGD is just less significant in the scheme of things for investment grade--leading to less weight given to recovery; investors are focused on getting paid in the first place.

Whenever a threshold percentage of the company's assets would first be used to satisfy other claims, this translates into a meaningful disadvantage for the junior creditors. The threshold for notching is reached when more-senior claims cover more than 20% of the assets (unless less-valuable assets make up the collateral or there mitigating factors exist, such as upstream guarantees).

While we do not make specific judgments regarding the level of absolute recovery for investment-grade debt, the material disadvantage of junior issues is designed to roughly correspond to the 30% absolute-recovery benchmark that applies for speculative-grade notching. More often than not, junior debt recovers less than 30% (although this figure may vary by jurisdiction).

The threshold level takes into account that it normally takes more than $1 of book assets--as valued today--to satisfy $1 of priority debt. In the case of secured debt--which limits the priority to the collateral pledged--the remaining assets are still less likely to be sufficient to repay the unsecured debt, inasmuch as the collateral ordinarily consists of the company's better assets and often substantially exceeds the amount of the debt.

Moreover, in all likelihood, there will be additional debt by the time of default, as pointed out above. Since such debt--as well as the refinancing of existing debt--will be incurred as the company approaches default, it is more likely to be on a secured basis (or directly to the entity that holds the operating assets, in the case of an operating company/holding company structure).

To the extent that certain obligations have a priority claim on the company's assets, lower-ranking obligations are at a disadvantage because a smaller pool of assets will be available to satisfy the remaining claims. As mentioned above, debt can be junior by virtue of being contractually subordinated--that is, the terms of the issue specifically provide that debt holders will receive recovery in a bankruptcy only after the claims of other creditors have been satisfied.

Another case is when the issue is unsecured, while assets representing a significant portion of the company's value collateralize secured borrowings. (If the collateral that secures a particular debt issue is of dubious value, while the more valuable collateral is pledged to another loan, even secured debt may be notched down from the corporate credit rating.)

A third form of disadvantage can arise if a company conducts its operations through an operating subsidiary/holding-company structure. In this case, if the whole group is bankrupt, creditors of the subsidiaries--including holders of even contractually subordinated debt--would have the first claim to the subsidiaries' assets, while creditors of the parent would have only a junior claim, limited to the residual value of the subsidiaries' assets remaining after the subsidiaries' direct liabilities have been satisfied. The disadvantage of parent-company creditors owing to the parent/subsidiary legal structure is known as "structural subordination." Even if the group's operations are splintered among many small subsidiaries, the individual debt obligations of which have only dubious recovery prospects, the parent-company creditors may still be disadvantaged compared with a situation in which all creditors would have an equal claim on the assets.

If a company has an atypical mix of assets, the 20% threshold could be higher or lower to reflect the relative amounts of better or worse assets. Goodwill especially is suspect, considering its likely value in a default scenario. In applying the notching guidelines, Standard & Poor's generally eliminates from total assets goodwill in excess of a "normal" amount--10% of total adjusted assets. As distinct from goodwill, intangibles are considered potentially valuable--for example, established brands in the consumer products sector. We do not, however, perform detailed asset appraisals or attempt to postulate specifically about how market values might fluctuate in a hypothetical stress scenario (except in the case of secured debt).

The concept behind these thresholds is to measure material disadvantage with respect to the various layers of debt. At each level, as long as the next layer of debt still enjoys plenty of asset coverage, we do not consider the priority of the top layers as constituting a real disadvantage for the more junior issuers. Accordingly, the nature of the individual company's asset is important: If a company has an atypical mix of assets, the thresholds could be higher or lower to reflect the relative amounts of better or worse assets.

The relative size of the next layer of debt also is important. If the next layer is especially large--in relation to the assets assumed to remain after satisfying the more senior layers--then coverage is impaired. There are numerous LBOs financed with outsized issues just below the senior layers. Although the priority debt may be small (below the threshold levels), it poses a real disadvantage for junior issues: given the paucity of coverage remaining, the junior debt should be notched down.

One other note to keep in mind is that "absolute trumps relative," i.e., if for structural or other issue-specific (or jurisdiction specific) reasons we can confidently anticipate recovery of more than 30% (and less than 70%), we would equate the issue rating with the corporate credit rating, regardless of the result of the priority debt calculation. Similarly, if there were structural, issue-specific, or jurisdiction-specific reasons to anticipate recovery of less than 30%, we would rate the issue one notch below the corporate credit rating. These absolute recovery ranges are similar to those used for speculative-grade issue rating guidelines where we assign recovery ratings.

Application of guidelines

In applying the guidelines above, lease obligations--whether capitalized in the company's financial reporting or kept off balance sheet as operating leases are treated as priority debt--and the related assets are included on the asset side. Similarly, sold trade receivables and securitized assets are added back, along with an equal amount of priority debt. Other creditors are just as disadvantaged by such financing arrangements as by secured debt. In considering the surplus cash and marketable securities of companies that presently are financially healthy, we assume neither that the cash will remain available in the default scenario, nor that it will be totally dissipated, but rather that, over time, this cash will be reinvested in operating assets that mirror the company's current asset base, subject to erosion in value of the same magnitude.

Local- and foreign-currency issue ratings. In determining local-currency issue ratings, the point of reference is the local-currency corporate credit rating: local-currency issue ratings may be notched down one notch from the local-currency corporate credit rating in the case of investment-grade issuers, or one or two notches in the case of speculative-grade issuers. A foreign-currency corporate credit rating is sometimes lower than the local-currency corporate credit rating, reflecting the risk that a sovereign government could take actions that would impinge on the company's ability to meet foreign-currency obligations. But junior foreign-currency issues are not notched down from the foreign-currency corporate credit rating, because the government action would apply regardless of the senior/junior character of the debt. Of course, the issue would never be rated higher than if it had been denominated in local currency. For example, if a local-currency corporate credit rating were 'BB+' and the foreign-currency corporate credit rating were 'BB-', subordinated foreign currency-denominated issues could be rated 'BB-'. But, if a local-currency corporate credit rating were 'BB+' and the foreign-currency corporate credit rating were 'BB', subordinated foreign-currency denominated issues would be rated 'BB-', as would subordinated local-currency denominated issues.

Rating above the corporate credit rating: "Notching up"

We generally do not perform specific default scenario modeling for investment-grade companies, so identifying issues with superior recovery characteristics usually relies on security provisions of a specific issue. Candidates for notching up are secured debt issues, where collateral consists of assets with a well-established track record with respect to recovery, such as first mortgage bonds of regulated utilities.

As explained above, the weight given to recovery in assigning issue ratings diminishes as one moves up the rating spectrum. When a rating on a company is in the 'BBB' category, its well-secured debt is rated one or two notches above the corporate rating, depending on the extent of the collateral coverage. For the 'A' category, the maximum addition is limited to one notch--and this applies only when full recovery is anticipated. For 'AAA' and 'AA' categories, notching-up is phased out entirely.

Structural subordination

At times, a parent and its affiliate group have distinct default risks. The difference in risk may arise from covenant restrictions, regulatory oversight, or other considerations. This is the norm for holding companies of insurance operating companies and banks. In such situations, there are no fixed limits governing the gaps between corporate credit ratings of the parent and its subsidiaries. The holding company has higher default risk, apart from postdefault recovery distinctions. If such a holding company issued both senior and junior debt, its junior obligations would be notched relative to the holding company's corporate credit rating by one or two notches.

Often, however, a parent holding company with one or more operating companies is viewed as a single economic entity. When the default risk is considered the same for the parent and its principal subsidiaries, they are assigned the same corporate credit rating. Yet, in a liquidation, holding-company creditors are entitled only to the residual net worth of the operating companies remaining after all operating company obligations have been satisfied. Parent-level debt issues are notched down to reflect structural subordination when the priority liabilities create a material disadvantage for the parent's creditors, after taking into account all mitigating factors. In considering the appropriate rating for a specific issue of parent-level debt, priority liabilities encompass all third-party liabilities (not just debt) of the subsidiaries--including trade payables, pension and retiree medical liabilities, and environmental liabilities--and any relatively better positioned parent-level liabilities. (For example, parent-level borrowings collateralized by the stock of the subsidiaries would be disadvantaged relative to subsidiary liabilities, but would rank ahead of unsecured parent-level debt.) Potential mitigating factors include:

Guarantees. Guarantees by the subsidiaries of parent-level debt (i.e., upstream guarantees) may overcome structural subordination by putting the claims of parent company creditors on a pari passu basis with those of operating company creditors. Such guarantees have to be enforceable under the relevant national legal system(s), and there most be no undue concern regarding potential allegations of fraudulent conveyance. Although joint and several guarantees from all subsidiaries provide the most significant protection, several guarantees by subsidiaries accounting for a major portion of total assets would be sufficient to avoid notching of parent debt issues in most cases.

The legal analysis outcome depends on the specific fact pattern, not legal documentation--so one cannot standardize the determination. But, if either the guarantor company received value or was solvent for a sufficiently long period subsequent to issuing the guarantee, the upstream guarantee should be valid. Accordingly, we consider upstream guarantees valid if any of these conditions are met:

- The proceeds of the guaranteed obligation are provided (downstreamed) to guarantor. It does not matter whether the issuer downstreams the money as an equity infusion or as a loan. Either way, the financing benefits the operations of the subsidiary which justifies the guarantee;
- The legal risk period--ordinarily, one or two years from entering into the guarantee--has passed;
- There is a specific analytical conclusion that there is little default risk during the period that the guarantee validity is at risk; or
- The rating of the guarantor is at least 'BB-' in jurisdictions that involve a two-year risk, or at least 'B+' in jurisdictions with one year risk.

Operating assets at the parent. If the parent is not a pure holding company, but rather also directly owns certain operating assets, this gives the parent's creditors a priority claim to the parent-level assets. This offsets, at least partially, the disadvantage that pertains to being structurally subordinated with respect to the assets owned by the subsidiaries.

Diversity. When the parent owns multiple operating companies, more liberal notching guidelines may be applied to reflect the benefit the diversity of assets might provide. The threshold guidelines are relaxed (but not eliminated) to correspond with the extent of business and/or geographic diversification of the subsidiaries. For bankrupt companies that own multiple, separate business units, the prospects for residual value remaining for holding company creditors improve as individual units wind up with shortfalls and surpluses. Also, holding companies with diverse businesses--in terms of product or geography--have greater opportunities for dispositions, asset transfers, or recapitalization of subsidiaries. If, however, the subsidiaries are operationally integrated, economically correlated, or regulated, the company's flexibility to reconfigure is more limited.

Concentration of debt. If a parent has a number of subsidiaries, but the preponderance of subsidiary liabilities are concentrated in one or two of these, e.g., industrial groups having finance or trading units, this concentration of liabilities can limit the disadvantage for parent-company creditors. Although the net worth of the leveraged units could well be eliminated in the bankruptcy scenario, the parent might still obtain recoveries from its relatively unleveraged subsidiaries. In applying the notching guideline in such cases, it may be appropriate to eliminate the assets of the leveraged subsidiary from total assets, and its liabilities from priority liabilities. The analysis then focuses on the assets and liabilities that remain, and the standard notching guideline must be substituted by other judgments regarding recovery prospects.

Downstream loans. If the parent's investment in a subsidiary is not just an equity interest, but also takes the form of downstream senior loans, this may enhance the standing of parent-level creditors because they would have not only a residual claim on the subsidiary's net worth, but also a debt claim that could be pari passu with other debt claims. However, most intercompany claims are subject to equitable subordination and/or other elimination in the bankruptcy process. Such assessment of downstream advances must take into account the applicable legal framework. (On the other hand, if the parent has borrowed funds from its subsidiaries, the resulting intercompany parent-level liability could further dilute the recoveries of external parent-level creditors.)

Adjustments. We eliminate from the notching calculations subsidiaries' deferred tax assets and liabilities and other accounting accruals and provisions that are not likely to have clear economic meaning in a default.

Speculative grade. For speculative-grade issuers, we perform a fundamental recovery analysis, which is communicated via our recovery ratings. The different levels of recovery are factored into our debt issue ratings by adding or subtracting notches from the corporate credit rating (see table).

Recovery Rating Scale And Issue Rating Criteria

(For issuers with a speculative-grade corporate credit rating)

Recovery rating	Recovery description	Recovery expectations (%)*	Issue rating notches relative to corporate credit rating
1+	Highest expectation, full recovery	100¶	+3 notches
1	Very high recovery	90–100	+2 notches
2	Substantial recovery	70–90	+1 notch
3	Meaningful recovery	50–70	0 notches
4	Average recovery	30–50	0 notches
5	Modest recovery	10–30	-1 notch
6	Negligible recovery	0–10	-2 notches

*Recovery of principal plus accrued but unpaid interest at the time of default. ¶Very high confidence of full recovery resulting from significant overcollateralization or strong structural features.

Recovery ratings assess a debt instrument's ultimate prospects for recovery of estimated principal and pre-petition interest (i.e., interest accrued but unpaid at the time of default) given a simulated payment default. Our recovery methodology focuses on estimating the percentage of recovery that debt investors would receive at the end of a formal bankruptcy proceeding or an informal out-of-court restructuring. Lender recoveries could be in the form of cash, debt or equity securities of a reorganized entity, or some combination thereof.

We focus on nominal recovery (rather than discounted present value recovery) because we believe discounted recovery is better identified independently by market participants who can apply their own preferred discount rate to our nominal recovery. (However, in jurisdictions with anticipated workout periods of longer than two to three years, we factor the delay into both recovery ratings and issue ratings to account for the time value of money and the inherent incremental uncertainty.)

While informed by historical recovery data, our recovery ratings incorporate fundamental deal-specific, scenario-driven, forward-looking analysis. They consider the impact of key structural features, intercreditor dynamics, the nature of insolvency regimes, and multijurisdictional issues in the context of a simulated default.

We acknowledge that recovery analysis (including default modeling, valuation, and restructuring dynamics) is complex and does not lend itself to precise or certain predictions. Outcomes invariably involve unforeseen events and are subject to extensive negotiations that are influenced by the subjective judgments, negotiating positions, and agendas of the various stakeholders. Even so, we believe our methodology of focusing on a company's unique and fundamental credit risks--together with the composition and structure of its debt, legal organization, and nondebt liabilities--provides valuable insight into creditor recovery prospects.

In this light, our recovery ratings are intended to provide educated approximations of postdefault recovery rates, rather than exact forecasts. Recovery ratings, when viewed together with a company's risk of default as estimated by our corporate credit rating, can help investors evaluate a debt instrument's risk/reward characteristics and determine their expected return.

Jurisdiction-specific adjustments for recovery and issue ratings. Full-blown, fundamental recovery analysis is limited to jurisdictions where insolvency regimes are reasonably well established and sufficient precedent and data are available. In other jurisdictions, we do not assign recovery ratings--and the basis for rating a specific issue different from than the corporate credit rating is similar to that used in investment-grade situations. That is, we employ a simple rule-of-thumb approach to identify issues that are junior--and thereby materially disadvantaged with respect to recovery prospects. If claims that come ahead of a given debt issue equal 15% of assets, we subtract one notch from the corporate credit rating level; if such priority claims reach the 30% level, we subtract two notches. We do not rate issues more than two notches below the corporate credit rating on the basis of inferior recovery considerations.

We are in the process of reviewing all significant jurisdictions around the world to assess how insolvency proceedings in practice affect postdefault recovery prospects and to consistently incorporate jurisdiction-specific adjustments. With the help of local insolvency practitioners, we assess each jurisdiction's creditor friendliness--in theory as well as in practice (about 30 jurisdictions have been assessed to date).

The four main factors that shape our analysis of the jurisdictions' creditor friendliness are:

- Security,
- Efficiency and control,

- Adherence to priorities, and
- Time to resolution.

Based on these factors, we classify the reviewed countries into three categories, according to their creditor friendliness. This classification enables us to make jurisdiction-specific adjustments to our recovery analysis. We cap both recovery ratings and the differential between the issuer credit and debt issue ratings in countries with debtor-friendly insolvency regimes.

Recovery Methodology For Industrials

Recovery analytics for industrial issuers has three basic components: determining the most likely path to default for a company; valuing the company following default; and distributing that value to claimants that we identify, based on the relative priority of each claimant.

Establishing a simulated path to default

This step is a fundamental; we must first understand the forces most likely to cause a default before we can estimate a level of cash flow at default or value a company. This step draws on the company and sector knowledge of our credit analysts to formulate and quantify the factors most likely to cause a company to default, given its unique business risks and financial risks.

At the outset of this process, we deconstruct the borrower's cash flow projections to understand management's general business, industry, and economic expectations. Once we understand management's view, we make appropriate adjustments to key economic, industry, and firm specific factors to simulate a payment default. While we recognize that there are many possible factors--both foreseen and unforeseen--that could lead to a default, we focus on the key operating factors that would most likely contribute to default.

Forecasting cash flow at default

The simulated default scenario is our assessment of the borrower's most likely path to a hypothetical payment default. The "insolvency proxy" is the point along that path that the company would default. The insolvency proxy is ordinarily defined as the point at which funds available plus free cash flow is exceeded by fixed charges.

The terms in this equation are:

Funds available. The sum of balance sheet cash and revolving credit facility availability (in excess of the minimal amount a company needs to operate its business at its seasonal peak).

Free cash flow. EBITDA in the year of default, less a minimal level of required maintenance capital expenditures, less cash taxes, plus or minus changes in working capital. For default modeling and recovery estimates, our EBITDA and free cash flow estimates ignore noncash compensation expenses and do not use our adjustments for operating leases.

Fixed charges. The sum, in the year of default, of:

- Scheduled principal amortization. Bullet or ballooning maturities are not treated as fixed charges, because lenders typically would refinance these amounts as long as a company can otherwise comfortably service its fixed charges;
- Required cash interest payments, including assumed increases to LIBOR rates on floating-rate debt and to the margin charged on debt obligations that have pricing grids or maintenance financial covenants; and

- Other cash payments the borrower is either contractually or practically obligated to pay that are not already captured as an operating expense. (Lease payments, for example, are accounted for within free cash flow and are not considered a fixed charge.)

A projected default may occur even if fixed charges are fully covered in a few special circumstances:

- Strategic bankruptcy filings, when a borrower may attempt to take advantage of the insolvency process primarily to obtain relief from legal claims or onerous contracts;
- When a borrower in distress may rationally be expected to retain a large amounts of cash (e.g., to prepare for a complex, protracted restructuring; if it is in a very capital-intensive industry; if it is in a jurisdiction that does not allow for super-priority standing for new credit in a postpetition financing); or
- When a borrower's financial covenants have deteriorated beyond the level at which even the most patient lender could tolerate further amendments or waivers.

Free cash flow is not necessarily equal to the level at point of default, though. Cash flow may decline below the insolvency proxy if the borrower's operating performance is expected to continue to deteriorate as a result of whatever competitive and economic conditions are assumed in the simulated default scenario. In any event, we attempt to identify a level of cash flow as one basis for our valuation.

Determining valuation

We consider a variety of valuation methodologies, including market multiples, discounted cash flow (DCF) modeling, and discrete asset analysis. The market multiples and DCF methods are used to determine a company's enterprise value as a going concern. This is generally the most appropriate approach when our simulated default and recovery analysis indicates that the borrower's reorganization (or the outright sale of the ongoing business or certain segments) is the most likely outcome of an insolvency proceeding.

We use discrete asset valuation most often for industries in which this valuation approach is typically used, or when the simulated default scenario indicates that the borrower's liquidation is the most likely outcome of insolvency.

If a company is expected to reorganize, but certain creditors hold collateral consisting of only particular assets, then enterprise value is inappropriate--and we assess the collateral based in its discrete values.

Market multiples

The key to valuing a company using a market-multiples approach is to select appropriate comparable companies, or comps. The analysis should include several comps similar to the company being valued with respect to business lines, geographic markets, margins, revenue, capital requirements, and competitive position. Of course, an ideal set of comps does not always exist, so analytical judgment often is required to adjust for differences in size, business profiles, and other attributes. In addition, in the context of a recovery analysis, the multiples must consider the competitive and economic environments assumed in our simulated default scenario, which are often very different than present conditions. As a result, our analysis strives to consider a selection of multiples and types of multiples.

Ideally, we are interested in multiples for similar companies that have reorganized because of circumstances consistent with our simulated default scenario. In practice, however, the existence of such "emergence" multiple comps are rare. As a result, our analysis often turns to transaction or purchase multiples for comparable companies, because these generally are more numerous. With transaction multiples, we try to use forward multiples (purchase price divided by projected EBITDA), rather than trailing multiples (purchase price divided by historical EBITDA), because we believe forward multiples, which incorporate the benefit of perceived cash flow synergies used to justify the purchase price, provide a more appropriate reference point. In addition, trading multiples for publicly traded companies can be useful because they allow us to track how multiples change over economic and business cycles. This is especially relevant for cyclical industries and for sectors entering a different stage of development, or experiencing changing competitive conditions.

A selection of multiples helps match our valuation with the conditions assumed in our simulated default scenario. For example, a company projected to default in a cyclical trough may warrant a higher multiple than one expected to default at a cyclical midpoint. Further, two companies in the same industry may merit meaningfully different multiples if one is highly leveraged and at risk of default from relatively normal competitive stresses, while the other is unlikely to default unless there is a large unexpected fundamental deterioration in the cash flow potential of the business model (which could make historical sector multiples irrelevant).

Our multiples analysis may also consider alternative industry-specific multiples--such as subscribers, hospital beds, recurring revenue, etc.--where appropriate. Alternatively, such metrics may serve as a check on the soundness of a valuation that relied on an EBITDA multiple, DCF, or discrete asset approach.

Discounted cash flow

Our valuation is based on the long-term operating performance of the reorganized company. We use a perpetuity growth formula, which contemplates a long-term steady-state growth rate deemed appropriate for the borrower's business. However, when applicable, we start with specific annual cash flow forecasts for a period of time following reorganization, while relying on the perpetuity growth formula for subsequent periods.

Discrete asset valuation

We value the relevant assets by applying industry- and asset-specific advance rates or third-party appraisals.

Identifying and estimating the value of debt and nondebt claims

After valuing a company, we identify and quantify the debt obligations and other material liabilities that would be expected to have a claim against the company. Potential claims fall into three broad categories:

- Principal and accrued interest on all debt outstanding at the point of default, whether issued at the operating company, subsidiary, or holding company level;
- Bankruptcy-related claims, such as debtor-in-possession (DIP) financing and administrative expenses for professional fees and other bankruptcy costs; and
- Other nondebt claims, such as taxes payable, certain securitization programs, trade payables, deficiency claims on rejected leases, litigation liabilities, and unfunded postretirement obligations.

Our analysis of these claims and their potential values takes into consideration each borrower's particular facts and circumstances, as well as the expected impact on the claims as a result of our simulated default scenario.

We estimate debt outstanding at the point of default by reducing term loans by scheduled amortization up to the point of our simulated default. We assume that all committed debt facilities, such as revolving credit facilities and delayed draw term loans, are fully drawn. For asset-based lending (ABL) facilities, we consider whether the borrowing base formula would allow the company to fully draw the facility in a simulated default scenario. For LOCs, especially those issued under dedicated synthetic LOC tranches, we assess whether these contingent obligations are likely to be drawn.

Our estimate of debt outstanding at default also includes an estimate of pre-petition interest, which is calculated by adding six months of interest (based on historical data from Standard & Poor's LossStats® database) to our estimated principal amount at default. The inclusion of pre-petition interest makes our recovery analysis more consistent with banks' credit risk capital requirements under the Basel II Framework.

Our analysis focuses on the recovery prospects for the debt instruments in a company's current or pro forma debt structure, and generally does not make estimates for other debt that may be issued prior to a default. We feel that this approach is prudent and more relevant to investors because the amount and composition of any additional debt (secured, unsecured, and/or subordinated) may materially affect lender recovery rates, and it is not possible to know these particulars in advance. Further, incremental debt added to a company's capital structure may materially affect its probability of default, which could in turn affect all aspects of our recovery analysis (i.e., the most likely path to default, valuation given default, and LGD). Consequently, changes to a company's debt structure are treated as events that require a reevaluation of our default and recovery analysis.

Still, we take into account the potential for additional debt by limiting the recovery ratings assigned to unsecured debt--and, in turn, the notches above the corporate rating that might be added. For companies with a 'B' category rating, the recovery rating would ordinarily be limited to '2'. For companies in the 'BB' category, we would limit the recovery ratings assigned to unsecured issues to '3'. (Because they are further from potential default, there is a greater likelihood that interim change of their capital structure would occur.)

Also, we add more debt to the extent that this is consistent with our specific expectations for a given issuer. Similarly, we may assume the repayment of near-term debt maturities--without refinancing--if the company is expected to retire these obligations and has the liquidity to do so. Furthermore, revolving credit facilities with near-term maturities are generally assumed to roll over with similar terms.

Determining distribution of value

Distributions are assumed to follow a waterfall approach that reflects the relative seniority of the claimants, reflecting the specific laws, customs, and insolvency regime practices for the relevant jurisdictions for a company. In the U.S., our general assumption of the relative priority of claimants is:

- Super-priority claims, such as DIP financing;
- Administrative expenses;
- Federal and state tax claims;
- Senior secured claims;
- Junior secured claims;
- Senior unsecured debt and nondebt claims;
- Subordinated claims;
- Preferred stock; and
- Common stock.

However, this priority of claims is subject to two critical caveats:

- The beneficial position of secured creditor claims, whether first-priority or otherwise, is only valid to the extent that the collateral supporting such claims is equal to, or greater than, the amount of the claim. If the collateral value is insufficient to fully cover a secured claim, then the uncovered amount or deficiency balance will be pari passu with all other senior unsecured claims.
- Structural issues may alter the priority of certain claims against specific assets or entities in an organization based on the company's legal entity structure and the relevant terms and conditions of the debt instruments.

The recovery prospects for different debt instruments of the same type (senior secured, senior unsecured, senior subordinated, etc.) might be very different, depending on the structure of the transactions. We review a company's debt and legal entity structure, the terms and conditions of the various debt instruments as they pertain to borrower and guarantor relationships, collateral pledges and exclusions, facility amounts, covenants, and debt maturities. In addition, we must understand the breakout of the company's cash flow and assets as it pertains to its legal organizational structure, and consider the effect of key jurisdictional and intercreditor issues. Key structural issues to explore include identifying:

- Higher priority liens on specific assets by forms of secured debt such as mortgages, industrial revenue bonds, and ABL facilities;
- Nonguarantor subsidiaries (domestic or foreign) that do not guarantee a company's primary debt obligations or provide asset pledges to support the company's secured debt;
- Claims at nonguarantor subsidiaries that will have a higher priority (i.e., a structurally superior) claim on the value related to such entities;
- Material exclusions to the collateral pledged to secured lenders, including the lack of asset pledges by foreign subsidiaries or the absence of liens on significant domestic assets, including the stock of foreign or domestic nonguarantor subsidiaries (whether because of concessions demanded by and granted to the borrower, poor transaction structuring, regulatory restrictions, or limitations imposed by other debt indentures); and
- Whether a company's foreign subsidiaries are likely to file for bankruptcy in their local jurisdictions as part of the default and restructuring process.

While our analysis typically reduces the enterprise value by the amount of secured claims in accordance with its priority, there may be meaningful excess collateral value that is available to other creditors, especially those with a second lien. For example, this is often the case when secured debt collateralized by a first lien on all noncurrent assets also takes a second-priority lien on working capital assets that are already pledged to support an asset-based revolving credit facility.

Significant domestic or foreign nonguarantor entities must be identified because these entities have not explicitly promised to repay the debt. Thus, the portion of enterprise value derived from these subsidiaries does not directly support the rated debt. As a result, debt and certain nondebt claims at these subsidiaries have a structurally higher-priority claim against the subsidiary value. Accordingly, the portion of the company's enterprise value stemming from these subsidiaries must be estimated and treated separately in the distribution of value to creditors. This requires an understanding of the breakout of a company's cash flow and assets. Because these subsidiaries are still part of the enterprise being evaluated, any equity value that remains after satisfying the structurally superior claims would be available to satisfy other creditors of the entities that own these subsidiaries. Well-structured debt will often include covenants to restrict the amount of structurally superior debt that can be placed at such subsidiaries. Further, well-structured secured debt will take a lien on the stock of such subsidiaries to ensure a priority interest in the equity value available to support other creditors. In practice, the pledge of foreign subsidiary stock owned by U.S. entities is usually limited to 65% of voting stock for tax reasons. The residual value that is not captured by secured lenders through stock pledges would be expected to be available to all senior unsecured creditors on a pro rata basis.

Material assets (other than whole subsidiaries or subsidiary stock) not pledged to support secured debt would be shared by all senior unsecured creditors on a pro rata basis.

An evaluation of whether foreign subsidiaries would also be likely to file for bankruptcy is also required, because this would likely increase the cost of the bankruptcy process and create potential multijurisdictional issues that could affect lender recovery rates. The involvement of foreign courts in a bankruptcy process presents a myriad of complexities and uncertainties. For these same reasons, however, U.S.-domiciled borrowers that file for bankruptcy seldom also file their foreign subsidiaries without a specific benefit or reason for doing so. Consequently, we generally assume that foreign subsidiaries of U.S. borrowers do not file for bankruptcy unless there is a compelling reason to assume otherwise, such as a large amount of foreign debt that needs to be restructured to enable the company to emerge from bankruptcy. When foreign subsidiaries are expected to file bankruptcy, our analysis will be tailored to incorporate the particulars of the relevant bankruptcy regimes.

Intercreditor issues may affect the distribution of value and result in deviations from absolute priority (i.e., maintenance of the priority of the claims, including structural considerations, so that a class of claims will not receive any distribution until all classes above it are fully satisfied) In practice, Chapter 11 bankruptcies are negotiated settlements and the distribution of value may vary somewhat from the ideal implied by absolute priority for a variety of inter-creditor reasons, including, in the U.S., "accommodations" and "substantive consolidation."

Accommodations refer to concessions granted by senior creditors to junior claimants in negotiations to gain their cooperation in a timely restructuring. We generally do not explicitly model for accommodations because it is uncertain whether any concessions will be granted, if those granted will ultimately have value (e.g., warrants as a contingent equity claim), or whether the value will be material enough to meaningfully affect our projected recovery rates.

Substantive consolidation--in its pure form--represents a potentially drastic deviation from the ordering of priorities and distribution of value in bankruptcy plans of reorganization. In a true "legal" substantive consolidation, the assets and liabilities of an affiliated corporate group are collapsed into a single legal entity. This effectively would eliminate the credit support provided by structural priority, by treating creditors of the parent pari passu with creditors of operating units. However, true substantive consolidation is a rarely implemented, discretionary judicial doctrine. Our analysis relies on the low likelihood of true substantive consolidation, though we acknowledge that this risk could affect recoveries in certain cases.

Many more reorganization bankruptcy plans do involve a consolidation of a more limited nature. These consolidations do not radically affect the priority of external creditor claims--but do eliminate many intercompany claims, guaranties, and distributions and simplify the plan approval process and distributions to creditors under the plan. These "deemed" consolidations typically promote the resolution of complex multiparty negotiations and settlements along the lines of the relative legal priorities and bargaining strengths of creditors.

The bankruptcy process involves an inherent element of uncertainty. Indeed, the impact of deemed consolidation on recovery can vary. The extent to which more-senior creditors are willing to make concessions to more junior creditors to keep the process moving smoothly and to arrive at a consensual plan is impossible to predict.

However, in practice, the result of court-ordered consolidation is not sufficiently material enough of the time to be considered in our recovery rating assignments.

Surveillance of recovery ratings

Our recovery analysis at origination is unlikely to identify all of the actual claims at bankruptcy, or precisely predict the value of the company or the collateral given a default. Ratings are subject to periodic and event-specific surveillance. Factors that could affect our recovery analysis or ratings include:

- Acquisitions and divestitures;
- Updated valuation assumptions;
- Shifts in the profit and cash flow contributions of borrower, guarantor, or nonguarantor entities;
- Changes in debt or the exposure to nondebt liabilities;
- Intercreditor dynamics; and
- Changes in bankruptcy law.

Features of U.S.-domiciled corporate bankruptcies

Debtor-in-possession financing. DIP facilities are usually super-priority claims that enjoy repayment precedence over unsecured debt and, in certain circumstances, secured debt. However, it is not possible to accurately quantify the size or likelihood of DIP financing or to forecast how DIP financing may affect the recovery prospects for different creditors. This is because the size or existence of a theoretical DIP commitment is unpredictable, DIP borrowings at emergence may be substantially less than the DIP commitment, and such facilities may be used to fully repay overcollateralized pre-petition secured debt. Further, the presence of DIP financing might actually help creditor recovery prospects by allowing companies to restructure their operations and preserve the value of their businesses. As a result of these uncertainties, estimating the impact of a DIP facility is beyond the scope of our analysis, even though we recognize that DIP facilities may materially impact recovery prospects in certain cases.

Administrative expenses. Administrative expenses relate to professional fees and other costs associated with bankruptcy that are required to preserve the value of the estate and complete the bankruptcy process. These costs must be paid prior to exiting bankruptcy, making them effectively senior to those of all other creditors. The dollar amount and materiality of administrative claims usually correspond to the complexity of a company's capital structure. We expect that these costs will be less for simple capital structures that can usually negotiate an end to a bankruptcy quickly and may even use a prepackaged bankruptcy plan. Conversely, these costs are expected to be greater for large borrowers with complex capital structures where the insolvency process is often characterized by protracted multiple party disputes that drive up bankruptcy costs and diminish lender recoveries. When using an enterprise value approach, our methodology estimates the value of these claims as a percentage of the borrower's emergence enterprise value thusly:

- Three percent for capital structures with one primary class of debt;
- Five percent for two primary classes of debt (first- and second-lien creditors may be adversaries in a bankruptcy proceeding and are treated as separate classes for this purpose);
- Seven percent for three primary classes of debt; and
- Ten percent for certain complex capital structures.
- When using a discrete asset valuation approach, these costs are implicitly accounted for in the orderly liquidation

value discounts used to value a company's assets.

Other nondebt claims

Taxes. Various U.S. government authorities successfully assert tax claims as either administrative, priority, or secured claims. However, it is very difficult to project the level and status of such claims at origination (e.g., tax disputes en route to default are extremely hard to predict). However, their overall amount is seldom material enough to affect lender recoveries, so we generally do not reduce our expectation for lenders' recovery by estimating potential tax claims.

Swap termination costs. The U.S. Bankruptcy Code accords special treatment for counterparties to financial contracts, such as swaps, repurchase agreements, securities contracts, and forward contracts, to ensure continuity in the financial markets and to avoid systemic risk (so long as the type of contract and the type of counterparty fall within certain statutory provisions). Recent amendments to the Bankruptcy Code expanded this safe harbor by, among other things, including within the definition of a "swap" a range of transactions widely used in the capital markets (such as total return swaps and credit swaps) and expanding the definitions of counterparties (whether to swaps, repurchase agreements, securities contracts, or forward contracts) eligible to exercise these rights. In addition to not being subject to the automatic stay that generally precludes creditors from exercising their remedies against the debtor, these financial contract counterparties have the right to liquidate, terminate, or accelerate the contract in a bankruptcy. Most currency and interest rate swaps related to secured debt are secured on a pari passu basis with the respective loans. Other swaps are likely to be unsecured. Quantifying such claims is beyond the scope of our analysis.

Securitizations. Standard accounts receivable securitization programs involve the sale of certain receivables to a bankruptcy-remote special purpose entity in an arms length transaction under commercially reasonable terms. The assets sold are not legally part of the debtor's estate (although in some circumstances they may continue to be reported on the company's balance sheet for accounting purposes), and the securitization investors are completely reliant on the value of the assets they purchased to generate their return. As a result, the securitization investors do not have any recourse against the estate and we do not consider them claimants when we use an enterprise valuation approach in our default and recovery analysis. However, the debtor emerging from bankruptcy will need to finance its trade receivables anew, creating an incremental financing requirement that must be considered in the recovery analysis.

When a discrete asset valuation approach is used, the sold receivables are not available to any creditors. Additionally, future-flow types of securitization, which securitizes all or a portion of the borrower's future revenue and cash flow (typically related to particular contracts, patents, trademarks, or other intangible assets), would effectively reduce all or a part of the enterprise value available to other corporate creditors.

Trade creditor claims. Typically, trade creditor claims are unsecured claims that rank pari passu with a borrower's other unsecured obligations. However, because a borrower's viability as a going concern hinges on continued access to goods and services, some pre-petition claims are either paid in the ordinary course or treated as priority administrative claims. This concession to critical trade vendors ensures that they remain willing to carry on their relationships with the borrower during the insolvency proceedings, thereby preserving the value of the estate and enhancing the recovery prospects for all creditors. Our analysis assumes that these costs continue to be paid as part of the company's normal working capital cycle.

Accordingly, we include trade credit claims as priority obligations only to the extent that we believe there will be valid claims at the time of emergence--or that the company will incur additional debt (including DIP facilities) to pay those claims.

Leases. U.S. bankruptcy law provides companies the opportunity to accept or reject leases during the bankruptcy process. (For commercial real property leases, the review period is limited to 210 days, including a one-time, 90-day extension, unless the lessor agrees to an extension.) If a lease is accepted, the company is required to keep rent payments on the lease current, meaning that there will be no claim against the estate. This also allows the lessee to continue to use the leased asset, with the cash flow (i.e., value) derived from the asset available to support other creditors.

If a lease is rejected, the company gives up the use of the asset. (The lessor may file a general unsecured claim against the estate for damages arising from the breach of contract.) We estimate the impact of lease rejection, starting with a lease rejection rate for the firm based on the types of assets leased, the industry, and our simulated default scenario. Leases are typically rejected for one of three reasons:

- The lease is priced above market rates;
- The leased asset is generating negative or insufficient returns; or
- The leased asset is highly vulnerable to obsolescence during the term of the lease.

Our evaluation may ballpark the rejection rate by assuming it matches the percentage decline in revenue in our simulated default scenario or, if applicable, by looking at common industry lease rejection rates. Case-specific considerations might include, for example, that leased assets are unusually old, underused, or priced above current market rates; a higher rejection rate in such cases may be warranted.

In bankruptcy, the amount of unsecured claims from rejected leases is determined by taking the amount of lost rental income and subtracting the net value available to the lessor by selling or releasing the asset in its next best use. However, the deficiency claims of commercial real estate lessors is further restricted to the greater of one year's rent or 15% of the remaining rental payments, not to exceed three years' rent. Lessors of assets other than commercial real property do not have their potential deficiency claims capped, but such leases are generally not material and are usually for relatively short periods of time. With these issues in mind, we quantify lease deficiency claims for most companies by multiplying their estimated lease rejection rate by three times their annual rent.

However, there are a few exceptions to our general approach. Deficiency claims for leases of major transportation equipment (e.g., aircraft, railcars, and ships) are specifically analyzed because these lease obligations do not have their claims capped, may be longer term, and are typically for substantial amounts. In addition, we use a lower rent multiple for cases in which a company relies primarily on very short-term leases (three years or less). Further, we do not include any deficiency claim for leases held by individual asset-specific subsidiaries that do not have credit support from other entities (by virtue of guarantees or co-lessee relationships) because of the lack of recourse against other entities and the likelihood that these subsidiaries are likely to be worthless if the leases are rejected. (This situation was relevant in many of the movie exhibitor bankruptcies in early 2000.)

Employment-related claims. Material unsecured claims may arise when a debtor rejects, terminates, or modifies the terms of employment or benefits for its current or retired employees. To reflect this risk for unsecured debtholders, we are likely to include some level of employment-related claims for companies--but only where uncompetitive labor or benefits costs are a factor in our simulated default scenario.

Pension plan termination claims. The ability to terminate a defined benefit pension plan is provided under the U.S. Employee Retirement Income Security Act (ERISA). Under ERISA, these plans may be terminated voluntarily by the debtor as the plan sponsor, or involuntarily by the Pension Benefit Guaranty Corporation (PBGC) as the agency that insures plan benefits. Typically, any termination during bankruptcy will be a "distress termination," in which the plan assets would be insufficient to pay benefits under the plan. However, the bankruptcy of the plan sponsor does not automatically result in the termination of its pension plans, and even underfunded plans may not necessarily be terminated; the debtor must demonstrate that it would not be able to successfully reorganize unless the plan is terminated.

In a distress termination, the PBGC assumes the liabilities of the pension plan up to the limits prescribed under ERISA and gets an unsecured claim in bankruptcy against the debtor for the unfunded benefits. The calculation of this liability is based on different assumptions than the borrower's reported liability in its financial statements. This, in addition to the difficulty of predicting the funded status of a plan at some point in the future, complicates our ability to accurately assess the value of these claims.

APPENDIX: CHANGE HISTORY

We originally published this criteria article on April 15, 2008.

This article partially superseded "Corporate Ratings Criteria 2008," published April 15, 2008. The section titled "Reflecting Recovery In Issue Ratings" supersedes the article "Securitization's Effect On Corporate Credit Quality," published Nov. 28, 2005. Both articles have now been archived.

We republished the article following out periodic review completed on Jan. 1, 2016. As a result of our review, we updated the author contact information.

On May 9, 2016, we republished this article to clarify the first sentence under the subheading "Application of guidelines".