



Methodology

*DBRS Rating Methodology
for Leveraged Finance*

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Insight beyond the rating.

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Executive Summary

DBRS's approach to rating corporate issuers in the leveraged finance (i.e., non-investment grade) sector reflects several key factors:

- The likelihood of default is much more immediate for leveraged credits than for investment-grade issuers (10-20 times as great).
- Investors in leveraged credits – knowing that default at any time may be just a step away for speculative-grade borrowers – attempt to protect themselves more than investors in the investment-grade sector, where default is less of an immediate concern.
- Not all investor protections, whether they be covenants, collateral, guarantees or other safeguards, are equally effective.

Recognizing how volatile leveraged credit can be, and that not all so-called “secured” instruments are equally protected, DBRS believes leveraged finance requires a more intensive level of analysis than does more stable investment-grade credit. This includes (1) traditional credit analysis that focuses on the likelihood of timely payment (i.e., risk of default), and (2) an evaluation of the various protective features of the deal, such as collateral security (which may enable a lender to be repaid even if default occurs), and covenants (which may enable a vigilant lender to exit a deteriorating credit before default occurs).

DBRS's evaluation of these issues is embodied in several rating opinions:

- An *issuer default¹ rating* that focuses solely on the likelihood of the rated entity meeting its financial obligations on time according to their terms.
- A *recovery rating* that focuses on the ultimate recovery² that holders of a specific instrument are expected to receive in the event that the instrument incurs a payment default.
- An *instrument rating*, specific to a particular issue, that “blends” the two elements of credit – default risk and anticipated recovery in the event of default – into a single rating (which may be higher than, lower than, or the same as, the issuer default rating).

1. “Default” as used herein means a “money” or “payment” default, that is, a failure to make a payment when due. It does not refer to a covenant default or contract breach, although such defaults or breaches, if left unremedied, can lead to demands for payment that, if then unmet, can lead to actual payment defaults.

2. “Recovery” as used herein means the ultimate recovery of the amount owed at the time of default, which means principal plus “pre-petition interest” (interest due but unpaid at the time of default). It does not include accrued interest during the workout or bankruptcy period. DBRS believes investors can best decide whatever discount they wish to apply to the ultimate recovery, rather than have DBRS apply an arbitrary discount rate that many investors would then have to deconstruct in order to apply their own discount rate.

Rating Leveraged Finance

Although credit and credit analysis are basically the same up and down the credit spectrum, the nature of what is being analyzed can change dramatically as we move from investment grade down into the speculative grade or “leveraged finance” arena. The reason for this becomes apparent when we examine default rates. Over a five-to-seven-year term, typical issuers rated “A” or better default at a rate of less than 1%; for BBB issuers the default rate is in the 3% to 5% range. Given this stability, investors in high-grade paper are less concerned about whether issuers will default, since so few of them do, and are more concerned about anticipating upgrades, downgrades and other changes to the credit that will have an impact on its price or make it a less attractive portfolio holding. The general assumption – in the investment-grade world – is that credit deterioration, if it occurs, will be gradual, leaving time to anticipate problems and exit the credit (albeit at a cost) before the situation becomes perilous.

Not so in the leveraged finance world, where about one out of eight BB credits defaults over five to seven years, and a whopping one-third of B issuers default over that time period. Leveraged lenders, knowing that their clients live “closer to the edge” than investment-grade issuers, have to approach credit analysis and monitoring of their issuers as a more dynamic exercise. This includes not only maintaining an intensely close watch on the entity’s basic credit fundamentals, but also “preparing for the worst” in structuring leveraged credits by taking appropriate precautions in the form of covenants, collateral and other protections that would not be common in the investment-grade world.

In rating leveraged credits, DBRS analyzes all of these elements of the credit:

- **Fundamental Creditworthiness (Default Risk):** We approach the fundamental creditworthiness of a leveraged issuer in the same way that we would an investment-grade entity, focusing on the basic factors (industry risk, business strength, profitability, growth potential, strategic position, managerial quality, financial policy and flexibility) that determine a company’s ability and willingness to meet its obligations on time. But even in focusing on “default risk,” the required level of diligence and monitoring is greater for speculative-grade than for investment-grade issuers, because of the increased volatility and vulnerability that is characteristic of lower-rated entities. With higher leverage, less dominant market positions and riskier operating profiles, leveraged firms are prone to more sudden reversals of fortune, which requires credit analysts to monitor them even more meticulously than they might investment-grade names, especially with respect to cash flow, liquidity and refinancing risk.
- **Covenants:** DBRS believes covenants can be important tools in monitoring and managing the credit risk of a specific debt instrument, with potential impact both on the risk of *default of that specific instrument* and also on that instrument’s potential *recovery in the event of default*. Assessing these potential impacts is challenging, especially the impact – if any – that covenants may have on default risk. In general, the default rating assigned to a company as a whole incorporates a certain view as to the financial policy and practices, corporate values and behavioral expectations of the rated entity and its management. To the extent that covenants on a particular instrument restrict managerial practices and behaviors, and allow holders of that instrument to exit the credit prior to the company taking the sort of actions (major acquisitions, increasing leverage, etc.) that were anticipated in assigning the corporate default rating, *then the default profile of that instrument may be less risky than that of the entity as a whole*. This could result in a higher default rating for the specific instrument than for the issuer. In addition to potentially reducing default risk on the instrument, well-structured covenants can also boost the likely recovery in the event of default by providing investors with the ability to force an issuer into default at an earlier stage of deterioration, while its business franchise retains more collateral value than it would later on.



- **Recovery/Asset Valuation:** DBRS evaluates the assets that would be available to repay investors in the event that particular debt instruments go into default, in order to estimate the likely recovery. In the case of *secured* debt instruments, we focus our evaluation first on the specific collateral security that is pledged to support that issue, taking into consideration whatever other claims there may be against that same collateral. In the case of *unsecured* or *subordinated* instruments, we look to all the assets that may be available to creditors of the issuer and evaluate their worth in a default scenario, while also attempting to quantify the various claims that would be presented against them, including the rated debt, other debt (including the “deficiency claims” of any secured debt that was not fully covered by its specific collateral security), trade creditors and other liabilities.

For leveraged finance transactions, DBRS typically expresses its rating opinion about these elements of credit in three separate ratings:

- An **issuer default rating** that focuses solely on the likelihood of the rated entity meeting its financial obligations on time according to their terms. The issuer default rating does not address the relative advantages or disadvantages of one class of an issuer’s debt over another, but rather speaks to the risk of any or all of that debt – regardless of how junior or senior, secured or unsecured – failing to be repaid according to its terms. It is expressed on the traditional AAA through D rating scale.
- A **recovery rating** that focuses on the likely ultimate recovery that holders of a specific instrument are expected to receive in the event the instrument incurs a payment default. This rating only addresses the expected recovery in the event of default and is totally indifferent to how likely or unlikely the particular issuer is to actually incur a default. For example, an issuer with a very low default rating (e.g., B) and therefore a high likelihood of default could receive the highest recovery rating on a deal that was well structured and protected. Conversely, a more highly-rated issuer whose risk of default may be small could still receive a low recovery rating on a poorly structured deal where investors were expected to recover little. (In fact, in a rational debt market one would expect high recovery ratings to match up with low default ratings and vice versa, since bankers and investors would deliberately require the most protective deal structures when lending to the most default-prone issuers, and would loosen up their protection requirements when dealing with issuers less likely to default. This explains why investment-grade issuers are seldom required to provide collateral or strong covenants, while leveraged finance borrowers are. Within the leveraged finance arena, however, the quality of protective structures varies greatly.) Recovery ratings are assigned on a numerical 1-6 scale. (*Refer to chart on next page.*)
- An **instrument rating**, specific to a particular issue, that blends the two elements of credit – default risk and anticipated recovery in the event of default – into a single rating (which may be higher than, lower than, or the same as, the issuer default rating). “Notching up” (or down, or not at all) the rating on a specific instrument from the overall default rating of the issuer is a convenient way to show at a glance how advantaged or disadvantaged that particular issue is versus other classes of debt of that issuer. Credit is a “zero-sum game” in the sense that an issuer only has a discrete amount of assets, cash flow and other resources that it can use to service its debt. One set of creditors can get priority access to those assets or cash flow in order to protect itself against loss only at the expense of some other set of creditors. When DBRS assigns, for example, a high recovery rating to an instrument, which means that we expect the holders to be substantially or fully repaid in the event of default, then the instrument rating on that deal will be notched up from the issuer default rating to reflect that. (*Refer to chart to see the degree of notching for a given recovery rating.*) As suggested in the paragraph headed “Covenants” above, there may occasionally be cases where the instrument rating is notched up from the issuer default rating NOT because of (or not *solely* because of) above-average recovery prospects, but because the strong covenant package actually reduces the default risk to holders of that instrument below the default risk borne by the entity’s creditors generally and which is captured in the issuer default rating. Regardless of whether the notching is due to features of the deal that affect default risk or to recovery expectations – or to a combination of both – the rating report and analytical write-up will always specify the reasons for any notching, up or down, of the instrument rating.



DBRS Recovery Rating and Notching of Instrument Rating

Recovery Rating	Anticipated Recovery (%)	Recovery Description	Notching: Instrument Rating versus Issuer Rating
RR1	90% to 100%	Outstanding	3 notches*
RR2	70% to 90%	Substantial	2 notches*
RR3	50% to 70%	Good	1 notch
RR4	30% to 50%	Average	0 notch
RR5	10% to 30%	Below Average	-1 notch
RR6	0% to 10%	Poor	-2 notches

* The resulting instrument rating will not exceed BBB (low); junior issues may be notched down from that level.

As described earlier, the instrument rating is a “blend” of the default risk (captured in the issuer rating) and the expected loss/recovery in the event of default (captured in the recovery rating). The weight given to the two factors – default and loss/recovery – varies up and down the credit spectrum, depending on how immediate or remote the likelihood of default. For example, for a B issuer, where the likelihood of default is probably 35% over five to six years, we would give considerable weight to the recovery prospects (or lack thereof) in determining the rating on a particular instrument. For a BB issuer, where the likelihood of default may only be one-third of what it is for the B issuer, we would give less weight to recovery in the instrument rating. Therefore, as issuers approach the investment-grade level, we scale back the amount of weight given to the recovery rating and, consequently, the amount of notching. As per the table above, any notching-up based on a recovery rating that would result in a BBB or BBB (high) instrument rating will be limited to an instrument rating of BBB (low). In cases where there are additional lower-ranking securities that also benefit from high recovery ratings, the associated instrument ratings may also be lower than otherwise prescribed by the methodology to reflect both the BBB (low) ceiling rating and ranking considerations.

Analytical Methodology

FUNDAMENTAL CREDITWORTHINESS (DEFAULT RISK)

As mentioned above, DBRS applies the same analytical methodology to leveraged (speculative grade) entities as it does to those in the investment-grade sector. (Please refer to DBRS’s industry-specific methodology reports, available on www.dbrs.com.) This is a fundamental credit approach that evaluates the overall risk of the industry and then zeroes in on the rated entity’s particular business position within that industry. We focus on the issuer’s core profitability and growth potential, overall business strategy, durability of its franchise, pricing power, cost structure – all with the intent of assessing how much risk is inherent in the company’s base business model. Then we examine management to see to what extent it has the quality, integrity, experience, imagination, execution skills and depth appropriate to lead the entity and to successfully confront the risks inherent in its business model. Once we have defined the entity’s overall business risks, we look at how those risks are mitigated and/or distributed through the company’s financial policies and practices. That includes, of course, an analysis of debt and capital ratios from the standpoint of both the amount and quality of capital, as well as financial policy in general, liquidity, earnings volatility, debt coverage ratios, asset quality and overall financial strength and flexibility.

Although DBRS has no “size bias” in its approach to rating smaller or middle-market companies, size can be a key factor to the extent it translates into market share, pricing or sourcing power, or the ability to absorb business or financial “shocks” of all sorts and remain solvent. But size, in and of itself, is not the sole rating determinant if a company can demonstrate that it has a durable business franchise, a strong financial profile and/or other offsetting strengths.



As mentioned above, the factors we analyze are much the same whether the entity is rated AAA or B, but the intensity of scrutiny may differ significantly because of the nature and volatility of the risks each entity faces as part of its day-to-day existence. We monitor all of our credits on a continual, ongoing basis. But if we think of the investment-grade company as more like a half-million ton supertanker, then the B-rated company is a 20-foot day sailer. Both need an alert person at the tiller at all times, but the day sailer is far more vulnerable than the supertanker to sinking in a heartbeat if it hits the wrong wave, storm or other vessel. Likewise the B-rated credit if it encounters an unforeseen business or financial reversal or other blow. For this reason our analysts are likely to scrutinize cash flows, to model liquidity and to monitor refinancing requirements even more closely for leveraged credits than they might for less volatile, highly-rated entities that have greater financial flexibility.

ANALYZING COVENANTS

Unlike investment grade, where debt covenants are typically loose or non-existent, leveraged finance transactions often have covenants that are designed to restrict an issuer's behavior during the term of the transaction. Their purpose is generally to prevent the issuer from over-extending itself or taking on additional risk that would increase the likelihood of its failing to repay the debt.

Covenants can affect ratings in various ways, as we will see in the following examples. Sometimes a covenant may affect the issuer's overall credit rating one way, and have a different impact on a particular instrument's rating. Alternatively, it may affect an issuer's likelihood of default differently than it does the likelihood of recovery in the event of default. Our goal, in analyzing covenants, is to explain the likely effect, if any, of those covenants on the default profile or the loss/recovery profile of both the issuer and the specific deals being rated and, where appropriate, to incorporate the impact of those covenants on the ratings.

Some covenants may decrease default risk, for a specific instrument: In evaluating the impact of covenants on our ratings, one of the first questions we ask is: Will this covenant require the company to behave significantly differently than we would expect it to behave absent the covenant? Our issuer default rating, which reflects the overall creditworthiness of the company, incorporates a view of management and its values, policies and practices, including its overall approach to risk. To the extent that the covenants in a particular debt instrument require the company merely to live up to the standards it already sets for itself and which are already "baked into" our issuer default rating, then the covenants do not give any particular advantage to the holders of that instrument and should have no impact on the instrument's rating. However, it might be a different story if the covenants mandated significantly more prudent behavior than was the norm for that issuer. For example, suppose a company noted for its free-spending, acquisitive ways agreed to a term loan or private placement that limited it to tight controls on leverage, acquisitions and other actions that would otherwise cause the credit to deteriorate, even though DBRS, in rating the overall company, had assumed its free-spending habits would continue. In that case, if DBRS were convinced that the well-covenanted debt holders were serious about enforcing their covenants, even to the point of demanding payment while the company was still healthy rather than letting management degrade its own credit, we might conclude that the default risk profile for that specific instrument was better than that of the company as a whole, and rate the instrument higher than the company solely for that reason.

Some covenants may increase default risk: Covenants can be a two-edged sword. In the previous example we showed how covenants that force a company to be its "better self" and behave more prudently than it normally would can lessen the firm's chances of default and possibly improve its credit rating. But covenants that are drawn so tightly that they restrict an issuer's room to maneuver or cause it to default too readily under its loan agreement or bond indenture can have the opposite effect. They may end up decreasing the firm's financial flexibility and creating operational "cliffs" that put its ongoing financial security in jeopardy over relatively minor "misses" in its business execution. Covenants like this, if severe enough, could actually weigh down the issuer default rating.



Covenants may have a different effect on recovery than they do on default: Covenants shift a certain measure of control over a company's future actions from its management to holders of specific debt instruments. As mentioned above, shifting too much control can limit management's flexibility so much that it hurts the credit, but shifting just enough that it mandates managerial prudence can bolster credit-worthiness. Covenants can also reinforce the value of collateral to a secured creditor by enabling that creditor to take action to enforce its rights against a struggling issuer earlier rather than later, before the issuer's business deteriorates to the point that it is no longer a viable candidate for reorganization. Ideally, the secured creditor would have the benefit of a covenant package designed to trigger while the issuer is early enough on the path to default that there is still a healthy core business to be rehabilitated via the workout or bankruptcy process.

For covenants to have any of the above effects, of course, they have to be enforced. Some investors are experienced, professional lenders that pay close attention to covenants, monitor for covenant defaults and actively engage with borrowers in the event of any breaches to protect their positions and mitigate credit risks. Other investors are less vigilant and routinely waive covenant breaches. In order to give rating credit for the positive impact that covenants are likely to have on either default or recovery, DBRS would have to be convinced through discussions with the issuer and/or the underwriters of the debt instrument that the investors have the experience, expertise and intention to monitor and enforce the covenants throughout the term of the deal.

ANALYZING RECOVERY

Recovery analysis focuses on investors' prospects for *ultimate recovery* after a bankruptcy, workout or restructuring if the debt instrument they hold defaults. Unlike our default ratings, which evaluate the likelihood of an issuer meeting its payments on time, recovery ratings assume that default will occur, regardless of how likely or unlikely that is to happen, and evaluate the outcome of that default for various debt instruments or classes of debt in terms of how they fare in recovering their principal. The two elements of credit – the likelihood of default and the severity of that default if it occurs – are both essential aspects of the risk management system of any bank or investor. Credit loss is a function of both elements, which are generally labeled, respectively, Probability of Default (PD) and Loss Given Default (LGD) when used in risk management systems. One of DBRS's goals is to ensure that our default ratings and recovery ratings, as well as their definitions and the methodology behind them, are clear and transparent enough that investors can use them as inputs in such systems, as well as generally to help them make investment decisions.

The *basic analytical framework* for recovery ratings is straightforward and flows directly from our traditional default rating analysis. Here are its key components:

- **Establish a realistic "default scenario"**: The key to recovery analysis is to first understand the factors and/or foreseeable events (even if remote) that would most likely cause a healthy borrower to become an unhealthy one and, ultimately, default on its obligations. Our analysts will draw on the industry, business and specific borrower knowledge that they have from rating the entity's overall creditworthiness to identify the critical factors most likely to cause the entity to default. This is a different exercise from the "will company X default?" question that is key to traditional credit analysis. In this case we are asking, "If company X were to default, what would be the specific factors that would cause that?" The answer our analysts come up with, in each instance, must be consistent with the outlook and trend analysis that is an integral part of their traditional default analysis on the same company. In this way, the recovery analysis is merely a logical extension of the default analysis.
- **Define the "path to default" both qualitatively and quantitatively**: Define it in terms of economic and/or business conditions, or other critical developments. Explain why these key stress factors are the most relevant ones and would lead to default. Compare and contrast alternative paths to default, if necessary, and explain why the chosen one is the most appropriate.



- **Model cash flows to default:** In many instances, analysts will be using cash flow models as part of their traditional default rating analysis. In those cases, the default simulation will often involve stressing various key factors in their existing cash flow models beyond whatever range of best and worst case projections they may be already considering, in order to create realistic (albeit perhaps somewhat draconian) default simulations. This can be a useful exercise, not only for creating default scenarios, but also for testing assumptions in the traditional default analysis. Occasionally analysts find their rated companies are more resilient when stressed to the downside than they previously anticipated, which can lead to discussion about the appropriateness of the default rating. So traditional default rating and recovery rating can and should be a dynamic exercise.
- **Define the point of default (default proxy):** Whether arrived at via modeling or through manual analytical calculation, there is a theoretical point at which the borrower will no longer be able to meet its critical obligations and will, therefore, demonstrate insolvency (i.e., default.) We need to define this point in terms of EBITDA so we have a cash flow “baseline” that we can use to value the company at the point of default. Generally, this will be the point at which:

EBITDA plus other available cash (free balances plus unused credit lines, if any)	NO LONGER MEETS	Fixed Charges (i.e., interest on projected debt, scheduled principal amortization [other than balloons that would normally be refinanced] and other payments essential to remaining in business)
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A cautionary note about default proxies: Simulating default is far from an exact science. Projecting the various things that can go wrong for a borrower, and then selecting from among those downside scenarios which one(s) will be “fatal” and drive the entity into insolvency or bankruptcy, is especially challenging. The “default proxy” that DBRS and other professional credit analysts use as an approximation to estimate the point of default is a fancy way of saying that when a company runs out of available sources of cash and can no longer make its essential payments, it will usually go bust in one form or another. The actual “going bust” point may vary from the theoretical default proxy for many reasons, including:

- The issuer’s own strategy, especially if its management decides to take a preemptive approach to bankruptcy, filing sooner than absolutely required in order to preserve enterprise value and increase the chances of emerging as a going concern.
- The tightness of the borrower’s loan covenants, which may be breached well before reaching the point of actual insolvency defined by the default proxy. Depending on the lender group’s response, a covenant default could lead to a payment demand that, in turn, leads to an actual “money” default.
- The negative business momentum foreseen in the borrower’s default scenario may not stop at the point predicted by the default proxy. By the time the firm actually defaults and/or declares bankruptcy, it may have deteriorated further, to a lower level of cash flow.

In any case, our analytical write-up will indicate what specific default scenario assumptions we have made, especially in respect to estimating the baseline cash flow of the defaulted entity.

- **Determine the valuation of the defaulted entity:** Recovery is about the distribution of value, so even before we turn to the “who gets what” question (i.e., who is secured, who is unsecured, who is subordinated, what is the pecking order of claimants, etc.), we need to determine how much total value there is to be distributed among the various creditors.

We generally assume that creditors, other claimants and the bankruptcy court itself will be rational in wanting to maximize the value of the bankrupt estate, in whatever form the workout process takes. Therefore we consider alternative valuation methodologies in order to see which achieves the best result. These methods include:



- A “*multiples*” approach, which is a simple way to estimate the value of the stream of future earnings represented by the issuer’s baseline EBITDA. We select appropriate comparable companies to the issuer (“comps”) and use EBITDA multiples similar to transaction or market multiples of the comps to value the issuer, based on the issuer’s baseline EBITDA calculated previously (ideally, adjusted if necessary to reflect what EBITDA is expected to be at the point the issuer exits the workout or bankruptcy process.) Perfect comps, of course, seldom exist, so we must apply analytical judgment to adjust for variations in business model, size, competitive and geographic factors, as well as changes in the business and economic climate from the time when the “comp” transactions occurred.
 - A *discounted cash flow* (DCF) approach where we model the issuer’s future performance – post-bankruptcy – and determine the net present value of the rehabilitated firm’s projected future earnings streams. In many instances, DBRS’s analysts will have already used a cash flow model in their ongoing rating analysis of the company and to project the issuer’s simulated default scenario, stressing key inputs in order to define a realistic default proxy as discussed above. In those cases the valuation of the ongoing, reorganized firm post-bankruptcy will be the next stage in a continuing DCF modeling exercise. (Which could continue even further if we then later analyzed and rated the “emergence” financing for the company once it exited bankruptcy.)
 - Both the *multiples* and the *DCF* approaches attempt to determine the *enterprise value* of the defaulted entity. Enterprise value is particularly relevant when a specific class of creditors has a security interest in all or most of the issuer’s assets and is therefore in a position to control a reorganization of the company as a going concern. It is also relevant when there are numerous creditors with diverse collateral interests as long as there is a willingness to cooperate (often forced upon them by a bankruptcy court) in pooling their diverse security interests to achieve maximum value for all creditors.
 - *Industry-specific valuation approaches*: Many industries have their own accepted metrics for valuing specific assets or entire business franchises. They may assign a value per hospital bed or hotel room, per subscriber, per unit volume of certain resources (oil, gas, etc.), or as a percentage or multiple of various rental streams or other recurring revenues. We may use these approaches as our primary evaluation method, or as an alternative reality check on a multiples- or DCF-derived valuation.
 - *Discrete asset valuations* are appropriate in transactions that are supported by assets expected to be liquid and/or retain their value, even if the borrower is not reorganized as a going concern. Examples are accounts receivable and inventory (and “asset-based” financing generally), certain types of specialized plant and equipment, real estate, particularly valuable brands and trademarks, and so on. In evaluating discrete assets, we would often refer to appraisals, industry “loan-to-value” advance rates, and similar yardsticks.
- **Determine the claims against the defaulted entity**: Before we can determine how that valuation is to be distributed, we must first identify the claims against the defaulted entity. These include debt of various types, trade payables, contractual obligations of all types (leases, pensions, etc.), taxes, and specific obligations related to default and/or bankruptcy (debtor-in-possession financing, administrative and legal expenses, etc.) A key part of the analysis is determining which debt has claims against which entity(ies) in the organizational structure, either directly or via guarantees; whether it is secured or unsecured – if so, by which assets – and, finally, where those assets reside, organizationally and geographically.

To arrive at the amount of debt outstanding at the point of default, we assume that payments on existing amortizing term loans are made as scheduled prior to our simulated default, and that committed credit lines are drawn down in full prior to default. Bullet loan maturities are assumed to be refinanced (although it is conceivable that our analyst might foresee failure to refinance a bullet payment as a possible element in the simulated default scenario.)

Some speculative-grade companies (particularly in the BB/BB (high) categories) have little or no secured debt and few restrictions on taking on additional debt. While we do not formally cap recovery ratings for such companies at any particular level, we tend to take a conservative view, given the likelihood that the company will take on additional debt of various types as its credit deteriorates and it struggles to stay solvent while sliding into a default scenario. For this reason, in assessing the likely asset coverage



of its unsecured debt, we generally assume that the company's asset coverage will have deteriorated significantly (at least as far as its covenants allow it to) since the time of the initial rating.

- **Determine the distribution of that valuation:** Once we have estimated what we believe the defaulted firm will be worth, and what the claims against it are, then we can evaluate how that value will be distributed among the various claimants. In general, we expect priority among creditors to be as follows:
 - "Super-priority" claims, like Debtor-in-Possession (DIP) financing
 - Bankruptcy administration expenses
 - Federal and state taxes
 - Senior secured debt (but only with respect to the specifically pledged assets)
 - Junior secured debt (e.g., second liens, etc.)
 - Senior unsecured debt and general creditors
 - Subordinated debt
 - Preferred stock
 - Common stock

Specific contractual clauses, the legal structure of the borrowing entity and terms of the bond indenture or loan agreement can alter this, which is why a fundamental review of the legal structure of the transaction and the issuer's organizational and legal structure is essential to our analysis.

In determining how much each class of creditor will likely receive, we use a typical "waterfall" analysis that assumes the seniority outlined above. A waterfall analysis is essentially a series of fractions – one for each debt class – that compare the amount of assets available to pay that debt class with the amount of that debt class's claim. At the top of the waterfall, for the highest-priority claims, the numerator of the fraction is typically larger than the denominator, indicating that the claim will be fully paid. As priority claims are paid, there are fewer assets left (i.e., the numerator gets smaller) for the next claimant, and so on down the line of creditors. While it sounds simple and straightforward, there are a number of challenges and issues that analysts must consider in evaluating specific deals:

- **Overlapping security claims:** Often secured lenders will have a security interest in "all assets" or words to that effect. This often means "all assets that *haven't already been pledged to someone else.*" It may also mean "all assets *within the United States*" or otherwise cover fewer assets than the total covered by the firm's consolidated financial statements. So some analytical work is required to determine what percentage of the company's assets and total cash flow is actually represented by the lenders' collateral security.
- **Higher-priority claims:** In cases where certain creditors have higher-priority claims on specific assets, we have to reduce the enterprise value available to other creditors to account for satisfying the claims of the priority creditors first.
- **Holding company/subsidiary issues:** Each corporate entity can only give a lender a security interest in assets it actually owns. A holding company generally owns mostly stock, so a pledge of "all assets" from a holding company will mean mostly a pledge of the stock in its subsidiaries. For the security interest to include the operating assets of the company – which is what generates the cash flow – then the pledge must be from the operating subsidiaries that actually own those assets. For that asset pledge to be enforceable, there generally has to be a guarantee from that subsidiary of the secured debt, as well as valid legal consideration for the granting of the guarantee and pledge.
- **Collateral sharing issues:** Often different lending groups will share collateral; for example, one group with a first lien on current assets and a second lien on plant and equipment, and the other with a first on plant and equipment and a second on current assets.
- **Excesses and deficiencies:** Secured creditors who come up short from the proceeds of their specific collateral generally file claims as unsecured creditors for the deficiency. Likewise, any excess from pledged collateral security over and above what the secured creditors are owed becomes available to pay unsecured creditors.
- **Inter-creditor negotiation and accommodation:** Bankruptcy can be a long, expensive and highly complex process. Depending on the perceived strength of various parties to the proceeding, their



desire for speedy resolution, and other factors, there are sometimes “out-of-court” settlements and compromises that result in a different distribution of valuation proceeds than what would be achieved via the theoretical “waterfall” allocation. Typically these may involve higher-priority claimants agreeing to receive a little less than their full claim in order to provide a minimal payment to certain junior claimants, so as to obtain their cooperation and avoid a lengthy court battle.

- **Assign a recovery rating:** Using the DBRS Recovery Rating scale, we assign a recovery rating to each instrument that reflects the anticipated ultimate recovery.
- **Assign an instrument rating:** Based on the assigned recovery rating, we use the chart to map to the appropriate instrument rating, which may be notched up, down or not at all from the issuer default rating.
- **Publish our analysis of both the issuer and the transaction.**
- **Conduct ongoing monitoring and surveillance:** Once we assign our leveraged finance ratings, DBRS continues to carry out ongoing monitoring of the issuer and the transaction in order to identify material changes that might affect the ratings on either of them. Besides monitoring the overall creditworthiness of the issuer, we follow changes in the corporate and/or deal structure that might affect likely recovery prospects, including:
 - Changes in amounts of debt outstanding
 - Changes in deal structure or collateral arrangements
 - Changes in valuation outlooks or assumptions
 - Corporate organizational changes (M&A activity, recapitalizations, etc.)
 - Changes in the business that would affect enterprise value assumptions
 - Changes in inter-creditor relationships

Value of Leveraged Finance Ratings

The above may seem analytically complex, and indeed it is. But it is not an exact science, as anyone who has practiced the art of credit for many years will confirm. The criteria and methodology used by DBRS – and most other “fundamental” credit analysts – represents essentially a codification of the best practices and accumulated insights of generations of credit practitioners. We believe that disaggregating credit into its essential elements – risk of default and expected recovery in the event of default – will allow bankers and investors to better appreciate the value of covenants, collateral and other key aspects of credit structuring. Giving appropriate credit in the ratings for features that legitimately differentiate one deal from another will encourage “best practices” in loan structuring, and should better enable investors to make rational decisions about portfolio selection and pricing.

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