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A Guide to the Loan Market

September 2011





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To Our Clients

Standard & Poor's Ratings Services is pleased to bring you the 2011-2012 edition of our Guide To The Loan Market, which provides a detailed primer on the syndicated loan market along with articles that describe the bank loan and recovery rating process as well as our analytical approach to evaluating loss and recovery in the event of default.

Standard & Poor's Ratings is the leading provider of credit and recovery ratings for leveraged loans. Indeed, we assign recovery ratings to all speculative-grade loans and bonds that we rate in nearly 30 countries, along with our traditional corporate credit ratings. As of press time, Standard & Poor's has recovery ratings on the debt of more than 1,200 companies. We also produce detailed recovery rating reports on most of them, which are available to syndicators and investors. (To request a copy of a report on a specific loan and recovery rating, please refer to the contact information below.)

In addition to rating loans, Standard & Poor's Capital IQ unit offers a wide range of information, data and analytical services for loan market participants, including:

- **Data and commentary:** Standard & Poor's Leveraged Commentary & Data (LCD) unit is the leading provider of real-time news, statistical reports, market commentary, and data for leveraged loan and high-yield market participants.
- **Loan price evaluations:** Standard & Poor's Evaluation Service provides price evaluations for leveraged loan investors.
- **Recovery statistics:** Standard & Poor's LossStats(tm) database is the industry standard for recovery information for bank loans and other debt classes.
- **Fundamental credit information:** Standard & Poor's Capital IQ is the premier provider of financial data for leveraged finance issuers.

If you want to learn more about our loan market services, all the appropriate contact information is listed in the back of this publication. We welcome questions, suggestions, and feedback on our products and services, and on this Guide, which we update annually. We publish Leveraged Matters, a free weekly update on the leveraged finance market, which includes selected Standard & Poor's recovery reports and analyses and a comprehensive list of Standard & Poor's bank loan and recovery ratings.

To be put on the subscription list, please e-mail your name and contact information to dominic_inzana@standardandpoors.com or call (1) 212-438-7638. You can also access that report and many other articles, including this entire Guide To The Loan Market in electronic form, on our Standard & Poor's loan and recovery rating website: www.bankloanrating.standardandpoors.com.

For information about loan-market news and data, please visit us online at www.lcdcomps.com or contact Marc Auerbach at marc_auerbach@standardandpoors.com or (1) 212-438-2703. You can also follow us on Twitter, Facebook, or LinkedIn.



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A Syndicated Loan Primer

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A syndicated loan is one that is provided by a group of lenders and is structured, arranged, and administered by one or several commercial or investment banks known as arrangers.

Starting with the large leveraged buyout (LBO) loans of the mid-1980s, the syndicated loan market has become the dominant way for issuers to tap banks and other institutional capital providers for loans. The reason is simple: Syndicated loans are less expensive and more efficient to administer than traditional bilateral, or individual, credit lines.

At the most basic level, arrangers serve the time-honored investment-banking role of raising investor dollars for an issuer in need of capital. The issuer pays the arranger a fee for this service, and, naturally, this fee increases with the complexity and riskiness of the loan. As a result, the most profitable loans are those to leveraged borrowers—issuers whose credit ratings are speculative grade and who are paying spreads (premiums above LIBOR or another base rate) sufficient to attract the interest of nonbank term loan investors, typically LIBOR+200 or higher, though this threshold moves up and down depending on market conditions.

Indeed, large, high-quality companies pay little or no fee for a plain-vanilla loan, typically an unsecured revolving credit instrument that is used to provide support for short-term commercial paper borrowings or for working capital. In many cases, moreover,

these borrowers will effectively syndicate a loan themselves, using the arranger simply to craft documents and administer the process. For leveraged issuers, the story is a very different one for the arranger, and, by “different,” we mean more lucrative. A new leveraged loan can carry an arranger fee of 1% to 5% of the total loan commitment, generally speaking, depending on (1) the complexity of the transaction, (2) how strong market conditions are at the time, and (3) whether the loan is underwritten. Merger and acquisition (M&A) and recapitalization loans will likely carry high fees, as will exit financings and restructuring deals. Seasoned leveraged issuers, by contrast, pay lower fees for refinancings and add-on transactions.

Because investment-grade loans are infrequently used and, therefore, offer drastically lower yields, the ancillary business is as important a factor as the credit product in

arranging such deals, especially because many acquisition-related financings for investment-grade companies are large in relation to the pool of potential investors, which would consist solely of banks.

The “retail” market for a syndicated loan consists of banks and, in the case of leveraged transactions, finance companies and institutional investors. Before formally launching a loan to these retail accounts, arrangers will often get a market read by informally polling select investors to gauge their appetite for the credit. Based on these discussions, the arranger will launch the credit at a spread and fee it believes will clear the market. Until 1998, this would have been it. Once the pricing was set, it was set, except in the most extreme cases. If the loan were undersubscribed, the arrangers could very well be left above their desired hold level. After the Russian debt crisis roiled the market in 1998, however, arrangers have adopted market-flex language, which allows them to change the pricing of the loan based on investor demand—in some cases within a predetermined range—as well as shift amounts between various tranches of a loan, as a standard feature of loan commitment letters. Market-flex language, in a single stroke, pushed the loan market, at least the leveraged segment of it, across the Rubicon, to a full-fledged capital market.

Initially, arrangers invoked flex language to make loans more attractive to investors by hiking the spread or lowering the price. This was logical after the volatility introduced by the Russian debt debacle. Over time, however, market-flex became a tool either to increase or decrease pricing of a loan, based on investor reaction.

Because of market flex, a loan syndication today functions as a “book-building” exercise, in bond-market parlance. A loan is originally launched to market at a target spread or, as was increasingly common by the late 2000s, with a range of spreads referred to as price talk (i.e., a target spread of, say, LIBOR+250 to LIBOR+275). Investors then will make commitments that in many cases are tiered by the spread. For example, an account may put in for \$25 million at LIBOR+275 or \$15 million at LIBOR+250. At the end of the process, the

arranger will total up the commitments and then make a call on where to price the paper. Following the example above, if the paper is oversubscribed at LIBOR+250, the arranger may slice the spread further. Conversely, if it is undersubscribed even at LIBOR+275, then the arranger will be forced to raise the spread to bring more money to the table.

Types Of Syndications

There are three types of syndications: an underwritten deal, a “best-efforts” syndication, and a “club deal.”

Underwritten deal

An underwritten deal is one for which the arrangers guarantee the entire commitment, and then syndicate the loan. If the arrangers cannot fully subscribe the loan, they are forced to absorb the difference, which they may later try to sell to investors. This is easy, of course, if market conditions, or the credit’s fundamentals, improve. If not, the arranger may be forced to sell at a discount and, potentially, even take a loss on the paper. Or the arranger may just be left above its desired hold level of the credit. So, why do arrangers underwrite loans? First, offering an underwritten loan can be a competitive tool to win mandates. Second, underwritten loans usually require more lucrative fees because the agent is on the hook if potential lenders balk. Of course, with flex-language now common, underwriting a deal does not carry the same risk it once did when the pricing was set in stone prior to syndication.

Best-efforts syndication

A “best-efforts” syndication is one for which the arranger group commits to underwrite less than the entire amount of the loan, leaving the credit to the vicissitudes of the market. If the loan is undersubscribed, the credit may not close—or may need major surgery to clear the market. Traditionally, best-efforts syndications were used for risky borrowers or for complex transactions. Since the late 1990s, however, the rapid acceptance of market-flex language has made best-efforts loans the rule even for investment-grade transactions.

Club deal

A “club deal” is a smaller loan (usually \$25 million to \$100 million, but as high as \$150 million) that is premarketed to a group of relationship lenders. The arranger is generally a first among equals, and each lender gets a full cut, or nearly a full cut, of the fees.

The Syndication Process

The information memo, or “bank book”

Before awarding a mandate, an issuer might solicit bids from arrangers. The banks will outline their syndication strategy and qualifications, as well as their view on the way the loan will price in market. Once the mandate is awarded, the syndication process starts. The arranger will prepare an information memo (IM) describing the terms of the transactions. The IM typically will include an executive summary, investment considerations, a list of terms and conditions, an industry overview, and a financial model. Because loans are not securities, this will be a confidential offering made only to qualified banks and accredited investors.

If the issuer is speculative grade and seeking capital from nonbank investors, the arranger will often prepare a “public” version of the IM. This version will be stripped of all confidential material such as management financial projections so that it can be viewed by accounts that operate on the public side of the wall or that want to preserve their ability to buy bonds or stock or other public securities of the particular issuer (see the Public Versus Private section below). Naturally, investors that view materially non-public information of a company are disqualified from buying the company’s public securities for some period of time.

As the IM (or “bank book,” in traditional market lingo) is being prepared, the syndicate desk will solicit informal feedback from potential investors on what their appetite for the deal will be and at what price they are willing to invest. Once this intelligence has been gathered, the agent will formally market the deal to potential investors. Arrangers will distribute most IM’s—along with other information related to the loan, pre- and

post-closing—to investors through digital platforms. Leading vendors in this space are Intralinks, Syntrak, and Debt Domain.

The IM typically contain the following sections:

The executive summary will include a description of the issuer, an overview of the transaction and rationale, sources and uses, and key statistics on the financials.

Investment considerations will be, basically, management’s sales “pitch” for the deal.

The list of terms and conditions will be a preliminary term sheet describing the pricing, structure, collateral, covenants, and other terms of the credit (covenants are usually negotiated in detail after the arranger receives investor feedback).

The industry overview will be a description of the company’s industry and competitive position relative to its industry peers.

The financial model will be a detailed model of the issuer’s historical, pro forma, and projected financials including management’s high, low, and base case for the issuer.

Most new acquisition-related loans kick off at a bank meeting at which potential lenders hear management and the sponsor group (if there is one) describe what the terms of the loan are and what transaction it backs. Understandably, bank meetings are more often than not conducted via a Webex or conference call, although some issuers still prefer old-fashioned, in-person gatherings.

At the meeting, call or Webex, management will provide its vision for the transaction and, most important, tell why and how the lenders will be repaid on or ahead of schedule. In addition, investors will be briefed regarding the multiple exit strategies, including second ways out via asset sales. (If it is a small deal or a refinancing instead of a formal meeting, there may be a series of calls or one-on-one meetings with potential investors.)

Once the loan is closed, the final terms are then documented in detailed credit and security agreements. Subsequently, liens are perfected and collateral is attached.

Loans, by their nature, are flexible documents that can be revised and amended from time to time. These amendments require

different levels of approval (see Voting Rights section below). Amendments can range from something as simple as a covenant waiver to something as complex as a change in the collateral package or allowing the issuer to stretch out its payments or make an acquisition.

The loan investor market

There are three primary-investor consistencies: banks, finance companies, and institutional investors.

Banks, in this case, can be either a commercial bank, a savings and loan institution, or a securities firm that usually provides investment-grade loans. These are typically large revolving credits that back commercial paper or are used for general corporate purposes or, in some cases, acquisitions. For leveraged loans, banks typically provide unfunded revolving credits, LOCs, and—although they are becoming increasingly less common—amortizing term loans, under a syndicated loan agreement.

Finance companies have consistently represented less than 10% of the leveraged loan market, and tend to play in smaller deals—\$25 million to \$200 million. These investors often seek asset-based loans that carry wide spreads and that often feature time-intensive collateral monitoring.

Institutional investors in the loan market are principally structured vehicles known as collateralized loan obligations (CLO) and loan participation mutual funds (known as “prime funds” because they were originally pitched to investors as a money-market-like fund that would approximate the prime rate). In addition, hedge funds, high-yield bond funds, pension funds, insurance companies, and other proprietary investors do participate opportunistically in loans.

CLOs are special-purpose vehicles set up to hold and manage pools of leveraged loans. The special-purpose vehicle is financed with several tranches of debt (typically a ‘AAA’ rated tranche, a ‘AA’ tranche, a ‘BBB’ tranche, and a mezzanine tranche) that have rights to the collateral and payment stream in descending order. In addition, there is an equity tranche, but the equity tranche is usually not

rated. CLOs are created as arbitrage vehicles that generate equity returns through leverage, by issuing debt 10 to 11 times their equity contribution. There are also market-value CLOs that are less leveraged—typically 3 to 5 times—and allow managers more flexibility than more tightly structured arbitrage deals. CLOs are usually rated by two of the three major ratings agencies and impose a series of covenant tests on collateral managers, including minimum rating, industry diversification, and maximum default basket. By 2007, CLOs had become the dominant form of institutional investment in the leveraged loan market, taking a commanding 60% of primary activity by institutional investors. But when the structured finance market cratered in late 2007, CLO issuance tumbled and by mid-2010, CLO’s share had fallen to roughly 30%.

Loan mutual funds are how retail investors can access the loan market. They are mutual funds that invest in leveraged loans. These funds—originally known as prime funds because they offered investors the chance to earn the prime interest rate that banks charge on commercial loans—were first introduced in the late 1980s. Today there are three main categories of funds:

- Daily-access funds: These are traditional open-end mutual fund products into which investors can buy or redeem shares each day at the fund’s net asset value.
- Continuously offered, closed-end funds: These were the first loan mutual fund products. Investors can buy into these funds each day at the fund’s net asset valueNAV. Redemptions, however, are made via monthly or quarterly tenders rather than each day like the open-end funds described above. To make sure they can meet redemptions, many of these funds, as well as daily access funds, set up lines of credit to cover withdrawals above and beyond cash reserves.
- Exchange-traded, closed-end funds: These are funds that trade on a stock exchange. Typically, the funds are capitalized by an initial public offering. Thereafter, investors can buy and sell shares, but may not redeem them. The manager can also expand the fund via rights offerings. Usually, they

are only able to do so when the fund is trading at a premium to NAV, however—a provision that is typical of closed-end funds regardless of the asset class.

In March 2011, Invesco introduced the first index-based exchange traded fund, PowerShares Senior Loan Portfolio (BKLN), which is based on the S&P/LSTA Loan 100 Index.

The table below lists the 20 largest loan mutual fund managers by AUM as of July 31, 2011.

Public Versus Private

In the old days, the line between public and private information in the loan market was a simple one. Loans were strictly on the private side of the wall and any information transmitted between the issuer and the lender group remained confidential.

In the late 1980s, that line began to blur as a result of two market innovations. The first was more active secondary trading that sprung up to support (1) the entry of non-bank investors in the market, such as insurance companies and loan mutual funds and (2) to help banks sell rapidly expanding portfolios of distressed and highly leveraged loans that they no longer wanted to hold. This meant that parties that were insiders on loans might now exchange confidential information with traders and potential investors who were

not (or not yet) a party to the loan. The second innovation that weakened the public-private divide was trade journalism that focuses on the loan market.

Despite these two factors, the public versus private line was well understood and rarely controversial for at least a decade. This changed in the early 2000s as a result of:

- The proliferation of loan ratings, which, by their nature, provide public exposure for loan deals;
- The explosive growth of nonbank investors groups, which included a growing number of institutions that operated on the public side of the wall, including a growing number of mutual funds, hedge funds, and even CLO boutiques;
- The growth of the credit default swaps market, in which insiders like banks often sold or bought protection from institutions that were not privy to inside information; and
- A more aggressive effort by the press to report on the loan market.

Some background is in order. The vast majority of loans are unambiguously private financing arrangements between issuers and their lenders. Even for issuers with public equity or debt that file with the SEC, the credit agreement only becomes public when it is filed, often months after closing, as an exhibit to an annual report (10-K), a quarterly report (10-Q), a current report (8-K), or

Largest Loan Mutual Fund Managers			
Assets under management (bil. \$)			
Eaton Vance Management	13.39	DWS Investments	2.61
Fidelity Investments	12.12	T. Rowe Price	2.00
Hartford Mutual Funds	7.25	BlackRock Advisors LLC	1.84
Oppenheimer Funds	6.39	ING Pilgrim Funds	1.84
Invesco Advisers	4.44	RS Investments	1.51
PIMCO Funds	4.16	Nuveen Investments	1.37
Lord Abbett	4.16	MainStay Investments	1.34
RidgeWorth Funds	4.13	Pioneer Investments	0.88
Franklin Templeton Investment Funds	2.71	Highland Funds	0.74
John Hancock Funds	2.61	Goldman Sachs	0.64
<i>Source: Lipper FMI.</i>			

some other document (proxy statement, securities registration, etc.).

Beyond the credit agreement, there is a raft of ongoing correspondence between issuers and lenders that is made under confidentiality agreements, including quarterly or monthly financial disclosures, covenant compliance information, amendment and waiver requests, and financial projections, as well as plans for acquisitions or dispositions. Much of this information may be material to the financial health of the issuer and may be out of the public domain until the issuer formally puts out a press release or files an 8-K or some other document with the SEC.

In recent years, this information has leaked into the public domain either via off-line conversations or the press. It has also come to light through mark-to-market pricing services, which from time to time report significant movement in a loan price without any corresponding news. This is usually an indication that the banks have received negative or positive information that is not yet public.

In recent years, there was growing concern among issuers, lenders, and regulators that this migration of once-private information into public hands might breach confidentiality agreements between lenders and issuers and, more importantly, could lead to illegal trading. How has the market contended with these issues?

- *Traders.* To insulate themselves from violating regulations, some dealers and buy-side firms have set up their trading desks on the public side of the wall. Consequently, traders, salespeople, and analysts do not receive private information even if somewhere else in the institution the private data are available. This is the same technique that investment banks have used from time immemorial to separate their private investment banking activities from their public trading and sales activities.
- *Underwriters.* As mentioned above, in most primary syndications, arrangers will prepare a public version of information memoranda that is scrubbed of private information like projections. These IMs will be distributed to accounts that are on

the public side of the wall. As well, underwriters will ask public accounts to attend a public version of the bank meeting and distribute to these accounts only scrubbed financial information.

- *Buy-side accounts.* On the buy-side there are firms that operate on either side of the public-private divide. Accounts that operate on the private side receive all confidential materials and agree to not trade in public securities of the issuers in question. These groups are often part of wider investment complexes that do have public funds and portfolios but, via Chinese walls, are sealed from these parts of the firms. There are also accounts that are public. These firms take only public IMs and public materials and, therefore, retain the option to trade in the public securities markets even when an issuer for which they own a loan is involved. This can be tricky to pull off in practice because in the case of an amendment the lender could be called on to approve or decline in the absence of any real information. To contend with this issue, the account could either designate one person who is on the private side of the wall to sign off on amendments or empower its trustee or the loan arranger to do so. But it's a complex proposition.
- *Vendors.* Vendors of loan data, news, and prices also face many challenges in managing the flow of public and private information. In general, the vendors operate under the freedom of the press provision of the U.S. Constitution's First Amendment and report on information in a way that anyone can simultaneously receive it—for a price of course. Therefore, the information is essentially made public in a way that doesn't deliberately disadvantage any party, whether it's a news story discussing the progress of an amendment or an acquisition, or it's a price change reported by a mark-to-market service. This, of course, doesn't deal with the underlying issue that someone who is a party to confidential information is making it available via the press or prices to a broader audience.

Another way in which participants deal with the public versus private issue is to ask counterparties to sign “big-boy” letters. These letters typically ask public-side institutions to acknowledge that there may be information they are not privy to and they are agreeing to make the trade in any case. They are, effectively, big boys and will accept the risks.

Credit Risk: An Overview

Pricing a loan requires arrangers to evaluate the risk inherent in a loan and to gauge investor appetite for that risk. The principal credit risk factors that banks and institutional investors contend with in buying loans are default risk and loss-given-default risk. Among the primary ways that accounts judge these risks are ratings, credit statistics, industry sector trends, management strength, and sponsor. All of these, together, tell a story about the deal.

Brief descriptions of the major risk factors follow.

Default risk

Default risk is simply the likelihood of a borrower’s being unable to pay interest or principal on time. It is based on the issuer’s financial condition, industry segment, and conditions in that industry and economic variables and intangibles, such as company management. Default risk will, in most cases, be most visibly expressed by a public rating from Standard & Poor’s Ratings Services or another ratings agency. These ratings range from ‘AAA’ for the most creditworthy loans to ‘CCC’ for the least. The market is divided, roughly, into two segments: investment grade (loans to issuers rated ‘BBB-’ or higher) and leveraged (borrowers rated ‘BB+’ or lower). Default risk, of course, varies widely within each of these broad segments. Since the mid-1990s, public loan ratings have become a *de facto* requirement for issuers that wish to do business with a wide group of institutional investors. Unlike banks, which typically have large credit departments and adhere to internal rating scales, fund managers rely on agency ratings to bracket risk and explain the

overall risk of their portfolios to their own investors. As of mid-2011, then, roughly 80% of leveraged-loan volume carried a loan rating, up from 45% in 1998 and virtually none before 1995.

Loss-given-default risk

Loss-given-default risk measures how severe a loss the lender is likely to incur in the event of default. Investors assess this risk based on the collateral (if any) backing the loan and the amount of other debt and equity subordinated to the loan. Lenders will also look to covenants to provide a way of coming back to the table early—that is, before other creditors—and renegotiating the terms of a loan if the issuer fails to meet financial targets. Investment-grade loans are, in most cases, senior unsecured instruments with loosely drawn covenants that apply only at incurrance, that is, only if an issuer makes an acquisition or issues debt. As a result, loss given default may be no different from risk incurred by other senior unsecured creditors. Leveraged loans, by contrast, are usually senior secured instruments that, except for covenant-lite loans (see below), have maintenance covenants that are measured at the end of each quarter whether or not the issuer is in compliance with pre-set financial tests. Loan holders, therefore, almost always are first in line among pre-petition creditors and, in many cases, are able to renegotiate with the issuer before the loan becomes severely impaired. It is no surprise, then, that loan investors historically fare much better than other creditors on a loss-given-default basis.

Credit statistics

Credit statistics are used by investors to help calibrate both default and loss-given-default risk. These statistics include a broad array of financial data, including credit ratios measuring leverage (debt to capitalization and debt to EBITDA) and coverage (EBITDA to interest, EBITDA to debt service, operating cash flow to fixed charges). Of course, the ratios investors use to judge credit risk vary by industry. In addition to looking at trailing and pro forma ratios, investors look at man-

agement's projections and the assumptions behind these projections to see if the issuer's game plan will allow it to service its debt. There are ratios that are most geared to assessing default risk. These include leverage and coverage. Then there are ratios that are suited for evaluating loss-given-default risk. These include collateral coverage, or the value of the collateral underlying the loan relative to the size of the loan. They also include the ratio of senior secured loan to junior debt in the capital structure. Logically, the likely severity of loss-given-default for a loan increases with the size of the loan as a percentage of the overall debt structure so does. After all, if an issuer defaults on \$100 million of debt, of which \$10 million is in the form of senior secured loans, the loans are more likely to be fully covered in bankruptcy than if the loan totals \$90 million.

Industry sector

Industry is a factor, because sectors, naturally, go in and out of favor. For that reason, having a loan in a desirable sector, like telecom in the late 1990s or healthcare in the early 2000s, can really help a syndication along. Also, loans to issuers in defensive sectors (like consumer products) can be more appealing in a time of economic uncertainty, whereas cyclical borrowers (like chemicals or autos) can be more appealing during an economic upswing.

Sponsorship

Sponsorship is a factor too. Needless to say, many leveraged companies are owned by one or more private equity firms. These entities, such as Kohlberg Kravis & Roberts or Carlyle Group, invest in companies that have leveraged capital structures. To the extent that the sponsor group has a strong following among loan investors, a loan will be easier to syndicate and, therefore, can be priced lower. In contrast, if the sponsor group does not have a loyal set of relationship lenders, the deal may need to be priced higher to clear the market. Among banks, investment factors may include whether or not the bank is party to the sponsor's equity fund. Among institu-

tional investors, weight is given to an individual deal sponsor's track record in fixing its own impaired deals by stepping up with additional equity or replacing a management team that is failing.

Syndicating A Loan By Facility

Most loans are structured and syndicated to accommodate the two primary syndicated lender constituencies: banks (domestic and foreign) and institutional investors (primarily structured finance vehicles, mutual funds, and insurance companies). As such, leveraged loans consist of:

- *Pro rata debt* consists of the revolving credit and amortizing term loan (TLA), which are packaged together and, usually, syndicated to banks. In some loans, however, institutional investors take pieces of the TLA and, less often, the revolving credit, as a way to secure a larger institutional term loan allocation. Why are these tranches called "pro rata?" Because arrangers historically syndicated revolving credit and TLAs on a pro rata basis to banks and finance companies.
- *Institutional debt* consists of term loans structured specifically for institutional investors, although there are also some banks that buy institutional term loans. These tranches include first- and second-lien loans, as well as prefunded letters of credit. Traditionally, institutional tranches were referred to as TLBs because they were bullet payments and lined up behind TLAs. Finance companies also play in the leveraged loan market, and buy both pro rata and institutional tranches. With institutional investors playing an ever-larger role, however, by the late 2000s, many executions were structured as simply revolving credit/institutional term loans, with the TLA falling by the wayside.

Pricing A Loan In The Primary Market

Pricing loans for the institutional market is a straightforward exercise based on simple risk/return consideration and market techni-

cal. Pricing a loan for the bank market, however, is more complex. Indeed, banks often invest in loans for more than just spread income. Rather, banks are driven by the overall profitability of the issuer relationship, including noncredit revenue sources.

Pricing loans for bank investors

Since the early 1990s, almost all large commercial banks have adopted portfolio-management techniques that measure the returns of loans and other credit products relative to risk. By doing so, banks have learned that loans are rarely compelling investments on a stand-alone basis. Therefore, banks are reluctant to allocate capital to issuers unless the total relationship generates attractive returns—whether those returns are measured by risk-adjusted return on capital, by return on economic capital, or by some other metric.

If a bank is going to put a loan on its balance sheet, then it takes a hard look not only at the loan's yield, but also at other sources of revenue from the relationship, including noncredit businesses—like cash-management services and pension-fund management—and economics from other capital markets activities, like bonds, equities, or M&A advisory work.

This process has had a breathtaking result on the leveraged loan market—to the point that it is an anachronism to continue to call it a “bank” loan market. Of course, there are certain issuers that can generate a bit more bank appetite; as of mid-2011, these include issuers with a European or even a Midwestern U.S. angle. Naturally, issuers with European operations are able to better tap banks in their home markets (banks still provide the lion's share of loans in Europe), and, for Midwestern issuers, the heartland remains one of the few U.S. regions with a deep bench of local banks.

What this means is that the spread offered to pro rata investors is important, but so, too, in most cases, is the amount of other, fee-driven business a bank can capture by taking a piece of a loan. For this reason, issuers are careful to award pieces of bond- and equity-underwriting engagements and

other fee-generating business to banks that are part of its loan syndicate.

Pricing loans for institutional players

For institutional investors, the investment decision process is far more straightforward, because, as mentioned above, they are focused not on a basket of returns, but only on loan-specific revenue.

In pricing loans to institutional investors, it's a matter of the spread of the loan relative to credit quality and market-based factors. This second category can be divided into liquidity and market technicals (i.e., supply/demand).

Liquidity is the tricky part, but, as in all markets, all else being equal, more liquid instruments command thinner spreads than less liquid ones. In the old days—before institutional investors were the dominant investors and banks were less focused on portfolio management—the size of a loan didn't much matter. Loans sat on the books of banks and stayed there. But now that institutional investors and banks put a premium on the ability to package loans and sell them, liquidity has become important. As a result, smaller executions—generally those of \$200 million or less—tend to be priced at a premium to the larger loans. Of course, once a loan gets large enough to demand extremely broad distribution, the issuer usually must pay a size premium. The thresholds range widely. During the go-go mid-2000s, it was upwards of \$10 billion. During more parsimonious late-2000s \$1 billion was considered a stretch.

Market technicals, or supply relative to demand, is a matter of simple economics. If there are a lot of dollars chasing little product, then, naturally, issuers will be able to command lower spreads. If, however, the opposite is true, then spreads will need to increase for loans to clear the market.

Mark-To-Market's Effect

Beginning in 2000, the SEC directed bank loan mutual fund managers to use available mark-to-market data (bid/ask levels reported by secondary traders and compiled

by mark-to-market services like Markit Loans) rather than fair value (estimated prices), to determine the value of broadly syndicated loans for portfolio-valuation purposes. In broad terms, this policy has made the market more transparent, improved price discovery and, in doing so, made the market far more efficient and dynamic than it was in the past. In the primary market, for instance, leveraged loan spreads are now determined not only by rating and leverage profile, but also by trading levels of an issuer's previous loans and, often, bonds. Issuers and investors can also look at the trading levels of comparable loans for market-clearing levels.

Types Of Syndicated Loan Facilities

There are four main types of syndicated loan facilities:

- A revolving credit (within which are options for swingline loans, multicurrency-borrowing, competitive-bid options, term-out, and evergreen extensions);
- A term loan;
- An LOC; and
- An acquisition or equipment line (a delayed-draw term loan).

A *revolving credit line* allows borrowers to draw down, repay, and reborrow. The facility acts much like a corporate credit card, except that borrowers are charged an annual commitment fee on unused amounts, which drives up the overall cost of borrowing (the facility fee). Revolvers to speculative-grade issuers are often tied to borrowing-base lending formulas. This limits borrowings to a certain percentage of collateral, most often receivables and inventory. Revolving credits often run for 364 days. These revolving credits—called, not surprisingly, 364-day facilities—are generally limited to the investment-grade market. The reason for what seems like an odd term is that regulatory capital guidelines mandate that, after one year of extending credit under a revolving facility, banks must then increase their capital reserves to take into account the unused amounts. Therefore,

banks can offer issuers 364-day facilities at a lower unused fee than a multiyear revolving credit. There are a number of options that can be offered within a revolving credit line:

1. A *swingline* is a small, overnight borrowing line, typically provided by the agent.
2. A *multicurrency line* may allow the borrower to borrow in several currencies.
3. A *competitive-bid option* (CBO) allows borrowers to solicit the best bids from its syndicate group. The agent will conduct what amounts to an auction to raise funds for the borrower, and the best bids are accepted. CBOs typically are available only to large, investment-grade borrowers.
4. A *term-out* will allow the borrower to convert borrowings into a term loan at a given conversion date. This, again, is usually a feature of investment-grade loans. Under the option, borrowers may take what is outstanding under the facility and pay it off according to a predetermined repayment schedule. Often the spreads ratchet up if the term-out option is exercised.
5. An *evergreen* is an option for the borrower—with consent of the syndicate group—to extend the facility each year for an additional year.

A *term loan* is simply an installment loan, such as a loan one would use to buy a car. The borrower may draw on the loan during a short commitment period and repays it based on either a scheduled series of repayments or a one-time lump-sum payment at maturity (bullet payment). There are two principal types of term loans:

- An *amortizing term loan* (A-term loans, or TLa) is a term loan with a progressive repayment schedule that typically runs six years or less. These loans are normally syndicated to banks along with revolving credits as part of a larger syndication.
- An *institutional term loan* (B-term, C-term, or D-term loans) is a term loan facility carved out for nonbank, institutional investors. These loans came into broad usage during the mid-1990s as the institutional loan investor base grew. This institutional category also includes second-lien

loans and covenant-lite loans, which are described below.

LOCs differ, but, simply put, they are guarantees provided by the bank group to pay off debt or obligations if the borrower cannot.

Acquisition/equipment lines (delayed-draw term loans) are credits that may be drawn down for a given period to purchase specified assets or equipment or to make acquisitions. The issuer pays a fee during the commitment period (a ticking fee). The lines are then repaid over a specified period (the term-out period). Repaid amounts may not be reborrowed.

Bridge loans are loans that are intended to provide short-term financing to provide a “bridge” to an asset sale, bond offering, stock offering, divestiture, etc. Generally, bridge loans are provided by arrangers as part of an overall financing package.

Typically, the issuer will agree to increasing interest rates if the loan is not repaid as expected. For example, a loan could start at a spread of L+250 and ratchet up 50 basis points (bp) every six months the loan remains outstanding past one year.

Equity bridge loan is a bridge loan provided by arrangers that is expected to be repaid by secondary equity commitment to a leveraged buyout. This product is used when a private equity firm wants to close on a deal that requires, say, \$1 billion of equity of which it ultimately wants to hold half. The arrangers bridge the additional \$500 million, which would be then repaid when other sponsors come into the deal to take the \$500 million of additional equity. Needless to say, this is a hot-market product.

Second-Lien Loans

Although they are really just another type of syndicated loan facility, second-lien loans are sufficiently complex to warrant a separate section in this primer. After a brief flirtation with second-lien loans in the mid-1990s, these facilities fell out of favor after the 1998 Russian debt crisis caused investors to adopt a more cautious tone. But after default rates fell precipitously in 2003, arrangers rolled out second-lien facilities to help finance issuers

struggling with liquidity problems. By 2007, the market had accepted second-lien loans to finance a wide array of transactions, including acquisitions and recapitalizations. Arrangers tap nontraditional accounts—hedge funds, distress investors, and high-yield accounts—as well as traditional CLO and prime fund accounts to finance second-lien loans.

As their name implies, the claims on collateral of second-lien loans are junior to those of first-lien loans. Second-lien loans also typically have less restrictive covenant packages, in which maintenance covenant levels are set wide of the first-lien loans. As a result, second-lien loans are priced at a premium to first-lien loans. This premium typically starts at 200 bps when the collateral coverage goes far beyond the claims of both the first- and second-lien loans to more than 1,000 bps for less generous collateral.

There are, lawyers explain, two main ways in which the collateral of second-lien loans can be documented. Either the second-lien loan can be part of a single security agreement with first-lien loans, or they can be part of an altogether separate agreement. In the case of a single agreement, the agreement would apportion the collateral, with value going first, obviously, to the first-lien claims and next to the second-lien claims. Alternatively, there can be two entirely separate agreements. Here’s a brief summary:

- In a single security agreement, the second-lien lenders are in the same creditor class as the first-lien lenders from the standpoint of a bankruptcy, according to lawyers who specialize in these loans. As a result, for adequate protection to be paid the collateral must cover both the claims of the first- and second-lien lenders. If it does not, the judge may choose to not pay adequate protection or to divide it pro rata among the first- and second-lien creditors. In addition, the second-lien lenders may have a vote as secured lenders equal to those of the first-lien lenders. One downside for second-lien lenders is that these facilities are often smaller than the first-lien loans and, therefore, when a vote comes up, first-lien

lenders can outvote second-lien lenders to promote their own interests.

- In the case of two separate security agreements, divided by a standstill agreement, the first- and second-lien lenders are likely to be divided into two separate creditor classes. As a result, second-lien lenders do not have a voice in the first-lien creditor committees. As well, first-lien lenders can receive adequate protection payments even if collateral covers their claims, but does not cover the claims of the second-lien lenders. This may not be the case if the loans are documented together and the first- and second-lien lenders are deemed a unified class by the bankruptcy court.

For more information, we suggest Latham & Watkins' terrific overview and analysis of second-lien loans, which was published on April 15, 2004 in the firm's *CreditAlert* publication.

Covenant-Lite Loans

Like second-lien loans, covenant-lite loans are a particular kind of syndicated loan facility. At the most basic level, covenant-lite loans are loans that have bond-like financial incurrence covenants rather than traditional maintenance covenants that are normally part and parcel of a loan agreement. What's the difference?

Incurrence covenants generally require that if an issuer takes an action (paying a dividend, making an acquisition, issuing more debt), it would need to still be in compliance. So, for instance, an issuer that has an incurrence test that limits its debt to 5x cash flow would only be able to take on more debt if, on a pro forma basis, it was still within this constraint. If not, then it would have breached the covenant and be in technical default on the loan. If, on the other hand, an issuer found itself above this 5x threshold simply because its earnings had deteriorated, it would not violate the covenant.

Maintenance covenants are far more restrictive. This is because they require an issuer to meet certain financial tests every quarter whether or not it takes an action. So, in the case above, had the 5x leverage maxi-

mum been a maintenance rather than incurrence test, the issuer would need to pass it each quarter and would be in violation if either its earnings eroded or its debt level increased. For lenders, clearly, maintenance tests are preferable because it allows them to take action earlier if an issuer experiences financial distress. What's more, the lenders may be able to wrest some concessions from an issuer that is in violation of covenants (a fee, incremental spread, or additional collateral) in exchange for a waiver.

Conversely, issuers prefer incurrence covenants precisely because they are less stringent. Covenant-lite loans, therefore, thrive when the supply/demand equation is tilted persuasively in favor of issuers.

Lender Titles

In the formative days of the syndicated loan market (the late 1980s), there was usually one agent that syndicated each loan. "Lead manager" and "manager" titles were doled out in exchange for large commitments. As league tables gained influence as a marketing tool, "co-agent" titles were often used in attracting large commitments or in cases where these institutions truly had a role in underwriting and syndicating the loan.

During the 1990s, the use of league tables and, consequently, title inflation exploded. Indeed, the co-agent title has become largely ceremonial today, routinely awarded for what amounts to no more than large retail commitments. In most syndications, there is one lead arranger. This institution is considered to be on the "left" (a reference to its position in an old-time tombstone ad). There are also likely to be other banks in the arranger group, which may also have a hand in underwriting and syndicating a credit. These institutions are said to be on the "right."

The different titles used by significant participants in the syndications process are administrative agent, syndication agent, documentation agent, agent, co-agent or managing agent, and lead arranger or book runner:

- *The administrative agent* is the bank that handles all interest and principal payments and monitors the loan.

- *The syndication agent* is the bank that handles, in purest form, the syndication of the loan. Often, however, the syndication agent has a less specific role.
- *The documentation agent* is the bank that handles the documents and chooses the law firm.
- *The agent* title is used to indicate the lead bank when there is no other conclusive title available, as is often the case for smaller loans.
- *The co-agent or managing agent* is largely a meaningless title used mostly as an award for large commitments.
- *The lead arranger or book runner* title is a league table designation used to indicate the “top dog” in a syndication.

Secondary Sales

Secondary sales occur after the loan is closed and allocated, when investors are free to trade the paper. Loan sales are structured as either assignments or participations, with investors usually trading through dealer desks at the large underwriting banks. Dealer-to-dealer trading is almost always conducted through a “street” broker.

Assignments

In an assignment, the assignee becomes a direct signatory to the loan and receives interest and principal payments directly from the administrative agent.

Assignments typically require the consent of the borrower and agent, although consent may be withheld only if a reasonable objection is made. In many loan agreements, the issuer loses its right to consent in the event of default.

The loan document usually sets a minimum assignment amount, usually \$5 million, for pro rata commitments. In the late 1990s, however, administrative agents started to break out specific assignment minimums for institutional tranches. In most cases, institutional assignment minimums were reduced to \$1 million in an effort to boost liquidity. There were also some cases where assignment fees were reduced or even eliminated for institutional assignments, but

these lower assignment fees remained rare into 2011, and the vast majority was set at the traditional \$3,500.

One market convention that became firmly established in the late 1990s was assignment-fee waivers by arrangers for trades crossed through its secondary trading desk. This was a way to encourage investors to trade with the arranger rather than with another dealer. This is a significant incentive to trade with arranger—or a deterrent to not trade away, depending on your perspective—because a \$3,500 fee amounts to between 7 bps to 35 bps of a \$1 million to \$5 million trade.

Primary assignments

This term is something of an oxymoron. It applies to primary commitments made by offshore accounts (principally CLOs and hedge funds). These vehicles, for a variety of tax reasons, suffer tax consequence from buying loans in the primary. The agent will therefore hold the loan on its books for some short period after the loan closes and then sell it to these investors via an assignment. These are called primary assignments and are effectively primary purchases.

Participations

A participation is an agreement between an existing lender and a participant. As the name implies, it means the buyer is taking a participating interest in the existing lender’s commitment.

The lender remains the official holder of the loan, with the participant owning the rights to the amount purchased. Consents, fees, or minimums are almost never required. The participant has the right to vote only on material changes in the loan document (rate, term, and collateral). Nonmaterial changes do not require approval of participants. A participation can be a riskier way of purchasing a loan, because, in the event of a lender becoming insolvent or defaulting, the participant does not have a direct claim on the loan. In this case, the participant then becomes a creditor of the lender and often must wait for claims to be sorted out to collect on its participation.

Loan Derivatives

Loan credit default swaps

Traditionally, accounts bought and sold loans in the cash market through assignments and participations. Aside from that, there was little synthetic activity outside over-the-counter total rate of return swaps. By 2008, however, the market for synthetically trading loans was budding.

Loan credit default swaps (LCDS) are standard derivatives that have secured loans as reference instruments. In June 2006, the International Settlement and Dealers Association issued a standard trade confirmation for LCDS contracts.

Like all credit default swaps (CDS), an LCDS is basically an insurance contract. The seller is paid a spread in exchange for agreeing to buy at par, or a pre-negotiated price, a loan if that loan defaults. LCDS enables participants to synthetically buy a loan by going short the LCDS or sell the loan by going long the LCDS. Theoretically, then, a loanholder can hedge a position either directly (by buying LCDS protection on that specific name) or indirectly (by buying protection on a comparable name or basket of names).

Moreover, unlike the cash markets, which are long-only markets for obvious reasons, the LCDS market provides a way for investors to short a loan. To do so, the investor would buy protection on a loan that it doesn't hold. If the loan subsequently defaults, the buyer of protection should be able to purchase the loan in the secondary market at a discount and then and deliver it at par to the counterparty from which it bought the LCDS contract. For instance, say an account buys five-year protection for a given loan, for which it pays 250 bps a year. Then in year 2 the loan goes into default and the market price falls to 80% of par. The buyer of the protection can then buy the loan at 80 and deliver to the counterpart at 100, a 20-point pickup. Or instead of physical delivery, some buyers of protection may prefer cash settlement in which the difference between the current market price and the delivery price is determined by polling dealers or using a third-party pricing service. Cash

settlement could also be employed if there's not enough paper to physically settle all LCDS contracts on a particular loan.

LCDX

Introduced in 2007, the LCDX is an index of 100 LCDS obligations that participants can trade. The index provides a straightforward way for participants to take long or short positions on a broad basket of loans, as well as hedge their exposure to the market.

Markit Group administers the LCDX, a product of CDS Index Co., a firm set up by a group of dealers. Like LCDS, the LCDX Index is an over-the-counter product.

The LCDX is reset every six months with participants able to trade each vintage of the index that is still active. The index will be set at an initial spread based on the reference instruments and trade on a price basis. According to the primer posted by Markit (<http://www.markit.com/information/affiliations/lcdx/alertParagraphs/01/document/LCDX%20Primer.pdf>), "the two events that would trigger a payout from the buyer (protection seller) of the index are bankruptcy or failure to pay a scheduled payment on any debt (after a grace period), for any of the constituents of the index."

All documentation for the index is posted at: <http://www.markit.com/information/affiliations/lcdx/alertParagraphs/01/document/LCDX%20Primer.pdf>.

Total rate of return swaps (TRS)

This is the oldest way for participants to purchase loans synthetically. And, in reality, a TRS is little more than buying a loan on margin. In simple terms, under a TRS program a participant buys the income stream created by a loan from a counterparty, usually a dealer. The participant puts down some percentage as collateral, say 10%, and borrows the rest from the dealer. Then the participant receives the spread of the loan less the financial cost plus LIBOR on its collateral account. If the reference loan defaults, the participant is obligated to buy it at par or cash settle the loss based on a mark-to-market price or an auction price.

Here's how the economics of a TRS work, in simple terms. A participant buys via TRS a \$10 million position in a loan paying L+250. To affect the purchase, the participant puts \$1 million in a collateral account and pays L+50 on the balance (meaning leverage of 9:1). Thus, the participant will receive:

L+250 on the amount in the collateral account of \$1 million, plus

200 bps (L+250 minus the borrowing cost of L+50) on the remaining amount of \$9 million.

The resulting income is L+250 * \$1 million plus 200 bps * \$9 million. Based on the participants' collateral amount—or equity contribution—of \$1 million, the return is L+2020. If LIBOR is 5%, the return is 25.5%. Of course, this is not a risk-free proposition. If the issuer defaults and the value of the loan goes to 70 cents on the dollar, the participant will lose \$3 million. And if the loan does not default but is marked down for whatever reason—market spreads widen, it is downgraded, its financial condition deteriorates—the participant stands to lose the difference between par and the current market price when the TRS expires. Or, in an extreme case, the value declines below the value in the collateral account and the participant is hit with a margin call.

Pricing Terms

Rates

Loans usually offer borrowers different interest-rate options. Several of these options allow borrowers to lock in a given rate for one month to one year. Pricing on many loans is tied to performance grids, which adjust pricing by one or more financial criteria. Pricing is typically tied to ratings in investment-grade loans and to financial ratios in leveraged loans. Communications loans are invariably tied to the borrower's debt-to-cash-flow ratio.

Syndication pricing options include prime, LIBOR, CD, and other fixed-rate options:

- *The prime* is a floating-rate option. Borrowed funds are priced at a spread over the reference bank's prime lending rate. The rate is reset daily, and borrowings may be repaid at any time without penalty. This is typically an overnight option,

because the prime option is more costly to the borrower than LIBOR or CDs.

- The *LIBOR* (or Eurodollar) option is so called because, with this option, the interest on borrowings is set at a spread over LIBOR for a period of one month to one year. The corresponding LIBOR rate is used to set pricing. Borrowings cannot be prepaid without penalty.
- The *CD* option works precisely like the LIBOR option, except that the base rate is certificates of deposit, sold by a bank to institutional investors.
- *Other fixed-rate options* are less common but work like the LIBOR and CD options. These include federal funds (the overnight rate charged by the Federal Reserve to member banks) and cost of funds (the bank's own funding rate).

LIBOR floors

As the name implies, LIBOR floors put a floor under the base rate for loans. If a loan has a 3% LIBOR floor and three-month LIBOR falls below this level, the base rate for any resets default to 3%. For obvious reasons, LIBOR floors are generally seen during periods when market conditions are difficult and rates are falling as an incentive for lenders.

Fees

The fees associated with syndicated loans are the upfront fee, the commitment fee, the facility fee, the administrative agent fee, the letter of credit (LOC) fee, and the cancellation or prepayment fee.

- *An upfront fee* is a fee paid by the issuer at close. It is often tiered, with the lead arranger receiving a larger amount in consideration for structuring and/or underwriting the loan. Co-underwriters will receive a lower fee, and then the general syndicate will likely have fees tied to their commitment. Most often, fees are paid on a lender's final allocation. For example, a loan has two fee tiers: 100 bps (or 1%) for \$25 million commitments and 50 bps for \$15 million commitments. A lender committing to the \$25 million tier will be paid on its final allocation rather than on initial

commitment, which means that, in this example, the loan is oversubscribed and lenders committing \$25 million would be allocated \$20 million and the lenders would receive a fee of \$200,000 (or 1% of \$20 million). Sometimes upfront fees will be structured as a percentage of final allocation plus a flat fee. This happens most often for larger fee tiers, to encourage potential lenders to step up for larger commitments. The flat fee is paid regardless of the lender's final allocation. Fees are usually paid to banks, mutual funds, and other non-offshore investors at close. CLOs and other offshore vehicles are typically brought in after the loan closes as a "primary" assignment, and they simply buy the loan at a discount equal to the fee offered in the primary assignment, for tax purposes.

- A *commitment fee* is a fee paid to lenders on undrawn amounts under a revolving credit or a term loan prior to draw-down. On term loans, this fee is usually referred to as a "ticking" fee.
- A *facility fee*, which is paid on a facility's entire committed amount, regardless of usage, is often charged instead of a commitment fee on revolving credits to investment-grade borrowers, because these facilities typically have CBOs that allow a borrower to solicit the best bid from its syndicate group for a given borrowing. The lenders that do not lend under the CBO are still paid for their commitment.
- A *usage fee* is a fee paid when the utilization of a revolving credit falls below a certain minimum. These fees are applied mainly to investment-grade loans and generally call for fees based on the utilization under a revolving credit. In some cases, the fees are for high use and, in some cases, for low use. Often, either the facility fee or the spread will be adjusted higher or lower based on a pre-set usage level.
- A *prepayment fee* is a feature generally associated with institutional term loans. This fee is seen mainly in weak markets as an inducement to institutional investors. Typical prepayment fees will be set on a sliding scale; for instance, 2% in year one

and 1% in year two. The fee may be applied to all repayments under a loan or "soft" repayments, those made from a refinancing or at the discretion of the issuer (as opposed to hard repayments made from excess cash flow or asset sales).

- An *administrative agent fee* is the annual fee typically paid to administer the loan (including to distribute interest payments to the syndication group, to update lender lists, and to manage borrowings). For secured loans (particularly those backed by receivables and inventory), the agent often collects a collateral monitoring fee, to ensure that the promised collateral is in place.

An *LOC fee* can be any one of several types. The most common—a fee for standby or financial LOCs—guarantees that lenders will support various corporate activities. Because these LOCs are considered "borrowed funds" under capital guidelines, the fee is typically the same as the LIBOR margin. Fees for commercial LOCs (those supporting inventory or trade) are usually lower, because in these cases actual collateral is submitted). The LOC is usually issued by a fronting bank (usually the agent) and syndicated to the lender group on a pro rata basis. The group receives the LOC fee on their respective shares, while the fronting bank receives an issuing (or fronting, or facing) fee for issuing and administering the LOC. This fee is almost always 12.5 bps to 25 bps (0.125% to 0.25%) of the LOC commitment.

Original issue discounts (OID)

This is yet another term imported from the bond market. The OID, the discount from par at loan, is offered in the new issue market as a spread enhancement. A loan may be issued at 99 bps to pay par. The OID in this case is said to be 100 bps, or 1 point.

OID Versus Upfront Fees

At this point, the careful reader may be wondering just what the difference is between an OID and an upfront fee. After all, in both cases the lender effectively pays less than par for a loan.

From the perspective of the lender, actually, there isn't much of a difference. But for the issuer and arrangers, the distinction is far more than semantics. Upfront fees are generally paid from the arrangers underwriting fee as an incentive to bring lenders into the deal. An issuer may pay the arranger 2% of the deal and the arranger, to rally investors, may then pay a quarter of this amount, or 0.50%, to lender group.

An OID, however, is generally borne by the issuer, above and beyond the arrangement fee. So the arranger would receive its 2% fee and the issuer would only receive 99 cents for every dollar of loan sold.

For instance, take a \$100 million loan offered at a 1% OID. The issuer would receive \$99 million, of which it would pay the arrangers 2%. The issuer then would be obligated to pay back the whole \$100 million, even though it received \$97 million after fees. Now, take the same \$100 million loan offered at par with an upfront fee of 1%. In this case, the issuer gets the full \$100 million. In this case, the lenders would buy the loan not at par, but at 99 cents on the dollar. The issuer would receive \$100 million of which it would pay 2% to the arranger, which would then pay one-half of that amount to the lending group. The issuer gets, after fees, \$98 million.

Clearly, OID is a better deal for the arranger and, therefore, is generally seen in more challenging markets. Upfront fees, conversely, are more issuer friendly and therefore are staples of better market conditions. Of course, during the most muscular bull markets, new-issue paper is generally sold at par and therefore requires neither upfront fees nor OIDs.

Voting rights

Amendments or changes to a loan agreement must be approved by a certain percentage of lenders. Most loan agreements have three levels of approval: required-lender level, full vote, and supermajority:

- The "required-lenders" level, usually just a simple majority, is used for approval of nonmaterial amendments and waivers or changes affecting one facility within a deal.
- A full vote of all lenders, including participants, is required to approve material

changes such as RATS (rate, amortization, term, and security; or collateral) rights, but, as described below, there are occasions when changes in amortization and collateral may be approved by a lower percentage of lenders (a supermajority).

- A supermajority is typically 67% to 80% of lenders and is sometimes required for certain material changes such as changes in amortization (in-term repayments) and release of collateral.

Covenants

Loan agreements have a series of restrictions that dictate, to varying degrees, how borrowers can operate and carry themselves financially. For instance, one covenant may require the borrower to maintain its existing fiscal-year end. Another may prohibit it from taking on new debt. Most agreements also have financial compliance covenants, for example, that a borrower must maintain a prescribed level of equity, which, if not maintained, gives banks the right to terminate the agreement or push the borrower into default. The size of the covenant package increases in proportion to a borrower's financial risk. Agreements to investment-grade companies are usually thin and simple. Agreements to leveraged borrowers are often much more onerous.

The three primary types of loan covenants are affirmative, negative, and financial.

Affirmative covenants state what action the borrower must take to be in compliance with the loan, such as that it must maintain insurance. These covenants are usually boilerplate and require a borrower to, for example, pay the bank interest and fees, provide audited financial statements, pay taxes, and so forth.

Negative covenants limit the borrower's activities in some way, such as regarding new investments. Negative covenants, which are highly structured and customized to a borrower's specific condition, can limit the type and amount of acquisitions, new debt issuance, liens, asset sales, and guarantees.

Financial covenants enforce minimum financial performance measures against the borrower, such as that he must maintain a higher

level of current assets than of current liabilities. The presence of these maintenance covenants—so called because the issuer must maintain quarterly compliance or suffer a technical default on the loan agreement—is a critical difference between loans and bonds. Bonds and covenant-lite loans (see above), by contrast, usually contain incurrence covenants that restrict the borrower's ability to issue new debt, make acquisitions, or take other action that would breach the covenant. For instance, a bond indenture may require the issuer to not incur any new debt if that new debt would push it over a specified ratio of debt to EBITDA. But, if the company's cash flow deteriorates to the point where its debt to EBITDA ratio exceeds the same limit, a covenant violation would not be triggered. This is because the ratio would have climbed organically rather than through some action by the issuer.

As a borrower's risk increases, financial covenants in the loan agreement become more tightly wound and extensive. In general, there are five types of financial covenants—coverage, leverage, current ratio, tangible net worth, and maximum capital expenditures:

- A *coverage covenant* requires the borrower to maintain a minimum level of cash flow or earnings, relative to specified expenses, most often interest, debt service (interest and repayments), fixed charges (debt service, capital expenditures, and/or rent).
- A *leverage covenant* sets a maximum level of debt, relative to either equity or cash flow, with total-debt-to-EBITDA level being the most common. In some cases, though, operating cash flow is used as the divisor. Moreover, some agreements test leverage on the basis of net debt (total less cash and equivalents) or senior debt.
- A *current-ratio covenant* requires that the borrower maintain a minimum ratio of current assets (cash, marketable securities, accounts receivable, and inventories) to current liabilities (accounts payable, short-term debt of less than one year), but sometimes a “quick ratio,” in which inventories are excluded from the numerator, is substituted.
- A *tangible-net-worth (TNW) covenant* requires that the borrower have a minimum level of TNW (net worth less intangible assets, such as goodwill, intellectual assets, excess value paid for acquired companies), often with a build-up provision, which increases the minimum by a percentage of net income or equity issuance.
- A *maximum-capital-expenditures covenant* requires that the borrower limit capital expenditures (purchases of property, plant, and equipment) to a certain amount, which may be increased by some percentage of cash flow or equity issuance, but often allowing the borrower to carry forward unused amounts from one year to the next.

Mandatory Prepayments

Leveraged loans usually require a borrower to prepay with proceeds of excess cash flow, asset sales, debt issuance, or equity issuance.

- *Excess cash flow* is typically defined as cash flow after all cash expenses, required dividends, debt repayments, capital expenditures, and changes in working capital. The typical percentage required is 50% to 75%.
- *Asset sales* are defined as net proceeds of asset sales, normally excluding receivables or inventories. The typical percentage required is 100%.
- *Debt issuance* is defined as net proceeds from debt issuance. The typical percentage required is 100%.
- *Equity issuance* is defined as the net proceeds of equity issuance. The typical percentage required is 25% to 50%.

Often, repayments from excess cash flow and equity issuance are waived if the issuer meets a preset financial hurdle, most often structured as a debt/EBITDA test.

Collateral and other protective loan provisions

In the leveraged market, collateral usually includes all the tangible and intangible assets of the borrower and, in some cases, specific assets that back a loan.

Virtually all leveraged loans and some of the more shaky investment-grade credits are backed by pledges of collateral. In the asset-based market, for instance, that typically takes the form of inventories and receivables,

with the amount of the loan tied to a formula based off of these assets. The common rule is that an issuer can borrow against 50% of inventory and 80% of receivables. Naturally, there are loans backed by certain equipment, real estate, and other property.

In the leveraged market, there are some loans that are backed by capital stock of operating units. In this structure, the assets of the issuer tend to be at the operating-company level and are unencumbered by liens, but the holding company pledges the stock of the operating companies to the lenders. This effectively gives lenders control of these units if the company defaults. The risk to lenders in this situation, simply put, is that a bankruptcy court collapses the holding company with the operating companies and effectively renders the stock worthless. In these cases, which happened on a few occasions to lenders to retail companies in the early 1990s, loan holders become unsecured lenders of the company and are put back on the same level with other senior unsecured creditors.

Springing liens/collateral release

Some loans have provisions that borrowers that sit on the cusp of investment-grade and speculative-grade must either attach collateral or release it if the issuer's rating changes.

A 'BBB' or 'BBB-' issuer may be able to convince lenders to provide unsecured financing, but lenders may demand springing liens in the event the issuer's credit quality deteriorates. Often, an issuer's rating being lowered to 'BB+' or exceeding its predetermined leverage level will trigger this provision. Likewise, lenders may demand collateral from a strong, speculative-grade issuer, but will offer to release under certain circumstances, such as if the issuer attains an investment-grade rating.

Change of control

Invariably, one of the events of default in a credit agreement is a change of issuer control.

For both investment-grade and leveraged issuers, an event of default in a credit agreement will be triggered by a merger, an acquisition of the issuer, some substantial purchase of the issuer's equity by a third party, or a

change in the majority of the board of directors. For sponsor-backed leveraged issuers, the sponsor's lowering its stake below a preset amount can also trip this clause.

Equity cures

These provisions allow issuers to fix a covenant violation—exceeding the maximum debt to EBITDA test for instance—by making an equity contribution. These provisions are generally found in private equity backed deals. The equity cure is a right, not an obligation. Therefore, a private equity firm will want these provisions, which, if they think it's worth it, allows them to cure a violation without going through an amendment process, through which lenders will often ask for wider spreads and/or fees in exchange for waiving the violation even with an infusion of new equity. Some agreements don't limit the number of equity cures while others cap the number to, say, one a year or two over the life of the loan. It's a negotiated point, however, so there is no rule of thumb. Bull markets tend to inspire more generous equity cures for obvious reasons, while in bear markets lenders are more parsimonious.

Asset-based lending

Most of the information above refers to "cash flow" loans, loans that may be secured by collateral, but are repaid by cash flow. Asset-based lending is a distinct segment of the loan market. These loans are secured by specific assets and usually governed by a borrowing formula (or a "borrowing base"). The most common type of asset-based loans are receivables and/or inventory lines. These are revolving credits that have a maximum borrowing limit, say \$100 million, but also have a cap based on the value of an issuer's pledged receivables and inventories. Usually, the receivables are pledged and the issuer may borrow against 80%, give or take. Inventories are also often pledged to secure borrowings. However, because they are obviously less liquid than receivables, lenders are less generous in their formula. Indeed, the borrowing base for inventories is typically in the 50% to 65%

range. In addition, the borrowing base may be further divided into subcategories—for instance, 50% of work-in-process inventory and 65% of finished goods inventory.

In many receivables-based facilities, issuers are required to place receivables in a “lock box.” That means that the bank lends against the receivable, takes possession of it, and then collects it to pay down the loan.

In addition, asset-based lending is often done based on specific equipment, real estate, car fleets, and an unlimited number of other assets.

Bifurcated collateral structures

Most often this refers to cases where the issuer divides collateral pledge between asset-based loans and funded term loans. The way this works, typically, is that asset-based loans are secured by current assets like accounts receivables and inventories, while term loans are secured by fixed assets like property, plant, and equipment. Current assets are considered to be a superior form of collateral because they are more easily converted to cash.

Subsidiary guarantees

Those not collateral in the strict sense of the word, most leveraged loans are backed by the guarantees of subsidiaries so that if an issuer goes into bankruptcy all of its units are on the hook to repay the loan. This is often the case, too, for unsecured investment-grade loans.

Negative pledge

This is also not a literal form of collateral, but most issuers agree not to pledge any assets to new lenders to ensure that the interest of the loanholders are protected.

Loan math—the art of spread calculation

Calculating loan yields or spreads is not straightforward. Unlike most bonds, which have long no-call periods and high-call premiums, most loans are prepayable at any time typically without prepayment fees. And, even in cases where prepayment fees apply, they are rarely more than 2% in year one and 1%

in year two. Therefore, affixing a spread-to-maturity or a spread-to-worst on loans is little more than a theoretical calculation.

This is because an issuer’s behavior is unpredictable. It may repay a loan early because a more compelling financial opportunity presents itself or because the issuer is acquired or because it is making an acquisition and needs a new financing. Traders and investors will often speak of loan spreads, therefore, as a spread to a theoretical call. Loans, on average, between 1997 and 2004 had a 15-month average life. So, if you buy a loan with a spread of 250 bps at a price of 101, you might assume your spread-to-expected-life as the 250 bps less the amortized 100 bps premium or LIBOR+170. Conversely, if you bought the same loan at 99, the spread-to-expected life would be LIBOR+330.

Default And Restructuring

There are two primary types of loan defaults: technical defaults and the much more serious payment defaults. Technical defaults occur when the issuer violates a provision of the loan agreement. For instance, if an issuer doesn’t meet a financial covenant test or fails to provide lenders with financial information or some other violation that doesn’t involve payments.

When this occurs, the lenders can accelerate the loan and force the issuer into bankruptcy. That’s the most extreme measure. In most cases, the issuer and lenders can agree on an amendment that waives the violation in exchange for a fee, spread increase, and/or tighter terms.

A payment default is a more serious matter. As the name implies, this type of default occurs when a company misses either an interest or principal payment. There is often a pre-set period of time, say 30 days, during which an issuer can cure a default (the “cure period”). After that, the lenders can choose to either provide a forbearance agreement that gives the issuer some breathing room or take appropriate action, up to and including accelerating, or calling, the loan.

If the lenders accelerate, the company will generally declare bankruptcy and restructure their debt through Chapter 11. If the company is not worth saving, however, because its primary business has cratered, then the issuer and lenders may agree to a Chapter 7 liquidation, in which the assets of the business are sold and the proceeds dispensed to the creditors.

Amend-To-Extend

This technique allows an issuer to push out part of its loan maturities through an amendment, rather than a full-out refinancing. Amend-to-extend transactions came into widespread use in 2009 as borrowers struggled to push out maturities in the face of difficult lending conditions that made refinancing prohibitively expensive.

Amend-to-extend transactions have two phases, as the name implies. The first is an amendment in which at least 50.1% of the bank group approves the issuer's ability to roll some or all existing loans into longer-dated paper. Typically, the amendment sets a range for the amount that can be tendered via the new facility, as well as the spread at which the longer-dated paper will pay interest.

The new debt is *pari passu* with the existing loan. But because it matures later and, thus, is structurally subordinated, it carries a higher rate, and, in some cases, more attractive terms. Because issuers with big debt loads are expected to tackle debt maturities over time, amid varying market conditions, in some cases, accounts insist on most-favored-nation protection. Under such protection, the spread of the loan would increase if the issuer in question prints a loan at a wider margin.

The second phase is the conversion, in which lenders can exchange existing loans for new loans. In the end, the issuer is left with two tranches: (1) the legacy paper at the initial price and maturity and (2) the new facility at a wider spread. The innovation here: amend-to-extend allows an issuer to term-out loans without actually refinancing into a new credit (which obviously would require marking the entire loan to market, entailing higher spreads, a new OID, and stricter covenants).

DIP Loans

Debtor-in-possession (DIP) loans are made to bankrupt entities. These loans constitute super-priority claims in the bankruptcy distribution scheme, and thus sit ahead of all prepetition claims. Many DIPs are further secured by priming liens on the debtor's collateral (see below).

Traditionally, prepetition lenders provided DIP loans as a way to keep a company viable during the bankruptcy process. In the early 1990s, a broad market for third-party DIP loans emerged. These non-prepetition lenders were attracted to the market by the relatively safety of most DIPs based on their super-priority status, and relatively wide margins. This was the case again the early 2000s default cycle.

In the late 2000s default cycle, however, the landscape shifted because of more dire economic conditions. As a result, liquidity was in far shorter supply, constraining availability of traditional third-party DIPs. Likewise, with the severe economic conditions eating away at debtors' collateral, not to mention reducing enterprise values, prepetition lenders were more wary of relying solely on the super-priority status of DIPs, and were more likely to ask for priming liens to secure facilities.

The refusal of prepetition lenders to consent to such priming, combined with the expense and uncertainty involved in a priming fight in bankruptcy court, has greatly reduced third-party participation in the DIP market. With liquidity in short supply, new innovations in DIP lending cropped up aimed at bringing nontraditional lenders into the market. These include:

- Junior DIPs. These facilities are typically provided by bond holders or other unsecured debtors as part of a loan-to-own strategy. In these transactions, the providers receive much or all of the post-petition equity interest as an incentive to provide the DIP loans.
- Roll-up DIPs. In some bankruptcies—LyondellBasell and Spectrum Brands are two 2009 examples—DIP providers are given the opportunity to roll up prepetition claims into junior DIPs, that rank ahead of other prepetition secured lenders. This sweetener was particularly

compelling for lenders that had bought prepetition paper at distressed prices and were able to realize a gain by rolling it into the junior DIPs.

Exit Loans

These are loans that finance an issuer's emergence from bankruptcy. Typically, the loans are prenegotiated and are part of the company's reorganization plan.

Sub-Par Loan Buybacks

This is another technique that grew out of the bear market that began in 2007. Performing paper fell to price not seen before in the loan market—with many trading south of 70. This created an opportunity for issuers with the financial wherewithal and the covenant room to repurchase loans via a tender, or in the open market, at prices below par.

Sub-par buybacks have deep roots in the bond market. Loans didn't suffer the price declines before 2007 to make such tenders attractive, however. In fact, most loan documents do not provide for a buyback. Instead, issuers typically need obtain lender approval via a 50.1% amendment.

Distressed exchanges

This is a negotiated tender in which classolders will swap their existing paper for a new series of bond that typically have a lower principal amount and, often, a lower yield. In exchange the bondholders might receive stepped-up treatment, going from subordinated to senior, say, or from unsecured to second-lien.

Standard & Poor's consider these programs a default and, in fact, the holders are agreeing to take a principal haircut in order to allow the company to remain solvent and improve their ultimate recovery prospects.

This technique is used frequently in the bond market but rarely for first-lien loans. One good example was from Harrah's Entertainment. In 2009, the gaming company issued \$3.6 billion of new 10% second-priority senior secured notes due 2018 for about \$5.4 billion of bonds due between 2010 and 2018.

Bits And Pieces

What follows are definitions to some common market jargon not found elsewhere in this primer, but used constantly as short-hand in the loan market:

- *Staple financing.* Staple financing is a financing agreement “stapled on” to an acquisition, typically by the M&A advisor. So, if a private equity firm is working with an investment bank to acquire a property, that bank, or a group of banks, may provide a staple financing to ensure that the firm has the wherewithal to complete the deal. Because the staple financing provides guidelines on both structure and leverage, it typically forms the basis for the eventual financing that is negotiated by the auction winner, and the staple provider will usually serve as one of the arrangers of the financing, along with the lenders that were backing the buyer.
- *Break prices.* Simply, the price at which loans or bonds are initially traded into the secondary market after they close and allocate. It is called the break price because that is where the facility breaks into the secondary market.
- *Market-clearing level.* As this phrase implies, the price or spread at which a deal clears the primary market. (Seems to be an allusion to a high-jumper clearing a hurdle.)
- *Running the books.* Generally the loan arranger is said to be “running the books,” i.e., preparing documentation and syndicating and administering the loan.
- *Disintermediation.* Disintermediation refers to the process where banks are replaced (or disintermediated) by institutional investors. This is the process that the loan market has been undergoing for the past 20 years. Another example is the mortgage market where the primary capital providers have evolved from banks and savings and loans to conduits structured by Fannie Mae, Freddie Mac, and the other mortgage securitization shops. Of course, the list of disintermediated markets is long and growing. In addition to leveraged loans and mort-

gages, this list also includes auto loans and credit card receivables.

- *Loss given default.* This is simply a measure of how much creditors lose when an issuer defaults. The loss will vary depending on creditor class and the enterprise value of the business when it defaults. Naturally, all things being equal, secured creditors will lose less than unsecured creditors. Likewise, senior creditors will lose less than subordinated creditors. Calculating loss given default is tricky business. Some practitioners express loss as a nominal percentage of principal or a percentage of principal plus accrued interest. Others use a present value calculation using an estimated discount rate, typically 15% to 25%, demanded by distressed investors.
- *Recovery.* Recovery is the opposite of loss given default—it is the amount a creditor recovers, rather than loses, in a given default.
- *Printing a deal.* Refers to the price or spread at which the loan clears.
- *Relative value.* This can refer to the relative return or spread between (1) various instruments of the same issuer, comparing for instance the loan spread with that of a bond; (2) loans or bonds of issuers that are similarly rated and/or in the same sector, comparing for instance the loan spread of one 'BB' rated healthcare company with that of another; and (3) spreads between markets, comparing for instance the spread on offer in the loan market with that of high-yield or corporate bonds. Relative value is a way of uncovering undervalued, or overvalued, assets.
- *Rich/cheap.* This is terminology imported from the bond market to the loan market. If you refer to a loan as rich, it means it is trading at a spread that is low compared with other similarly rated loans in the same sector. Conversely, referring to something as cheap means that it is trading at a spread that is high compared with its peer group. That is, you can buy it on the cheap.
- *Distressed loans.* In the loan market, loans traded at less than 80 cents on the dollar are usually considered distressed. In the bond market, the common definition is a spread of 1,000 bps or more. For loans, however, calculating spreads is an elusive art (see above) and therefore a more pedestrian price measure is used.
- *Default rate.* Calculated by either number of loans or principal amount. The formula is similar. For default rate by number of loans: the number of loans that default over a given 12-month period divided by the number of loans outstanding at the beginning of that period. For default rate by principal amount: the amount of loans that default over a 12-month period divided by the total amount outstanding at the beginning of the period. Standard & Poor's defines a default for the purposes of calculating default rates as a loan that is either (1) rated 'D' by Standard & Poor's, (2) to an issuer that has filed for bankruptcy, or (3) in payment default on interest or principal.
- *Leveraged loans.* Just what is a leveraged loan is a discussion of long standing. Some participants use a spread cut-off: i.e., any loan with a spread of LIBOR+125 or LIBOR+150 or higher qualifies. Others use rating criteria: i.e., any loan rated 'BB+' or lower qualifies. But what of loans that are not rated? At Standard & Poor's LCD we have developed a more complex definition. We include a loan in the leveraged universe if it is rated 'BB+' or lower or it is not rated or rated 'BBB-' or higher but has (1) a spread of LIBOR +125 or higher and (2) is secured by a first or second lien. Under this definition, a loan rated 'BB+' that has a spread of LIBOR+75 would qualify, but a nonrated loan with the same spread would not. It is hardly a perfect definition, but one that Standard & Poor's thinks best captures the spirit of loan market participants when they talk about leveraged loans.
- *Middle market.* The loan market can be roughly divided into two segments: large corporate and middle market. There are as many ways to define middle market as there are bankers. But, in the leveraged loan market, the standard has become an issuer with no more than \$50 million of EBITDA. Based

on this, Standard & Poor's uses the \$50 million threshold in its reports and statistics.

- *Axe sheets.* These are lists from dealers with indicative secondary bids and offers for loans. Axes are simply price indications.
- *Circled.* When a loan or bond is full subscribed at a given price it is said to be circled. After that, the loan or bond moves to allocation and funding.
- *Forward calendar.* A list of loans or bond that has been announced but not yet closed. These include both instruments that are yet to come to market and those that are actively being sold but have yet to be circled.
- *BWIC.* An acronym for “bids wanted in competition.” Really just a fancy way of describing a secondary auction of loans or bonds. Typically, an account will offer up a portfolio of facilities via a dealer. The dealer will then put out a BWIC, asking potential buyers to submit for individual names or the entire portfolio. The dealer will then collate the bids and award each facility to the highest bidder.
- *OWIC.* This stands for “offers wanted in competition” and is effectively a BWIC in reverse. Instead of seeking bids, a dealer is asked to buy a portfolio of paper and solicits potential sellers for the best offer.
- *Cover bid.* The level that a dealer agrees to essentially underwrite a BWIC or an auction. The dealer, to win the business, may give an account a cover bid, effectively putting a floor on the auction price.
- *Loan-to-own.* A strategy in which lenders—typically hedge funds or distressed investors—provide financing to distressed companies. As part of the deal, lenders receive either a potential ownership stake if the company defaults, or, in the case of a bankrupt company, an explicit equity stake as part of the deal.
- *Most favored nation clauses.* Some loans will include a provision to protect lenders if the issuer subsequently places a new loan at a higher spread. Under these provision, the spread of the existing paper ratchets up to the new spread (though in some cases the increase is capped). ●

Rating Leveraged Loans: An Overview

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Despite recent favorable rating and default trends, Standard & Poor's Ratings Services believes credit quality among U.S. speculative-grade industrial issuers remains fragile. Since the fourth quarter of 2009, we have raised more of our issuer credit ratings on corporate industrial issuers than we've lowered. Default rates have also improved. According to Standard & Poor's Global Fixed Income Research (GFIR), the current trailing 12-month default rate has dropped to 2.5%; this is well below the long-term average of 4.58% since 1982 and sharply below the peak rate of more than 11% in 2009. While these recent favorable trends reflect relative improvement in the credit quality of leveraged companies, we believe these companies remain exposed to several risks that could reverse the recent improvement in defaults.

These risks include a weak credit mix, with about 47% of our ratings on U.S. corporate industrials remaining concentrated in the 'B' and 'CCC' rating categories, minimal revenue growth, potential margin compression stemming from increased operating costs and the return of refinancing risk in 2013–2016.

These risk factors, combined with the 2009 spike in defaults, highlight the importance of fundamental credit analysis and recovery analytics. As default rates increase, recoveries become the focus for many leveraged investors because, with rising default rates, recoveries play a greater role in overall credit losses.

In December 2003, Standard & Poor's became the first rating agency to establish a separate, stand-alone rating scale to evaluate the potential recovery investors might expect in the event of a loan default. Before that, we used our traditional rating scale, which focused almost exclusively on the likelihood of default (will the borrower pay on time?) rather than on what the ultimate repayment would be if the borrower failed to make timely payments. Since then, Standard & Poor's has assigned recovery ratings to more than 3,000 speculative-grade secured loans and bonds. In March of 2008, Standard & Poor's began

assigning recovery ratings to the unsecured debt of speculative-grade issuers.

Why A Separate Recovery Scale?

Investors in loans recognize that they are incurring both types of risks: the risk of *default* and the risk of *loss in the event of default*. In traditional bond markets, especially bonds issued by investment-grade companies, the risk of default is relatively remote, and little attention is paid to covenants, collateral, or other protective features that would mitigate loss in the event of default. Indeed, such protective features are rare in such markets. But in the leveraged loan market, where the borrowers tend to be speculative grade (i.e., rated ‘BB+’ and below), the risk of default is significantly higher than it is for investment-grade borrowers. Therefore, we have the necessity of collateral, covenants, and similar features of “secured” lending.

But the challenge for investors is that not all loans labeled “secured” are equally secured, or even protected at all. In the past, data has shown, for example, that the majority of all secured loans do, in fact, repay their lenders 100% of principal in the event of default, with another sizable percentage providing substantial, albeit less than full, recoveries. But a significant number do not do nearly so well, and, indeed, might as well be

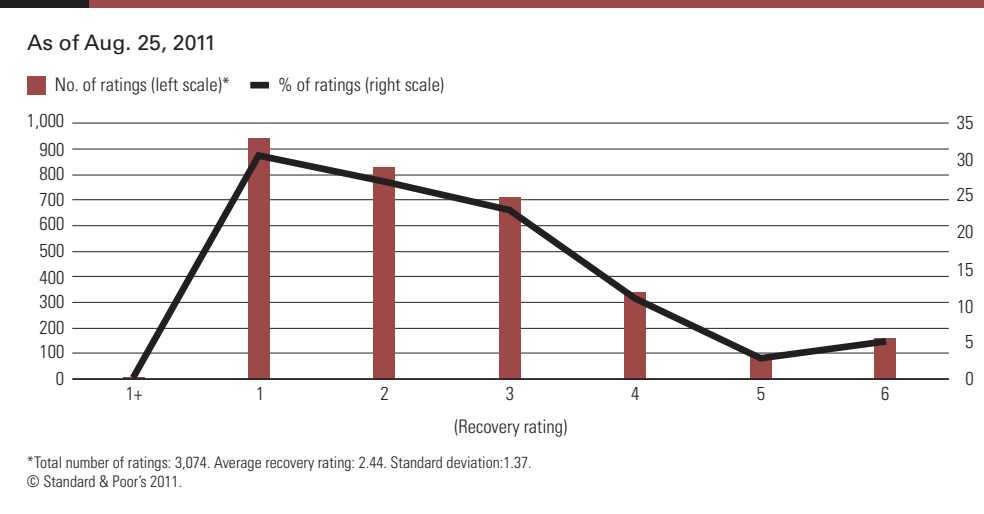
unsecured in terms of the actual protection afforded investors.

A primary purpose of Standard & Poor’s recovery ratings is to help investors differentiate between loans that are fully secured, partially secured, and those that are “secured” in name only. (See *chart 1*.) Second-lien loans are a specific example of secured loans whereby recovery prospects in a bankruptcy could vary dramatically depending on the overall makeup of the capital structure in question. These deals have attributes of both secured loans and subordinated debt, and determining post-default recovery prospects requires detailed analysis of the individual deal. Most second-lien loans that we rate have fallen into the lower recovery rating categories (categories 5 and 6; see *table 1*), but occasionally a second lien has been so well protected that it has merited a higher rating. Hence, once again, we have the need for recovery ratings to make that differentiation.

Comparing Issuer And Recovery Ratings

Standard & Poor’s recovery rating methodology builds upon its traditional corporate credit issuer rating analysis. The traditional analysis focuses on attributes of the borrower itself, which we tend to group under the heading of “business risk” factors (the bor-

Chart 1 Total Distribution Of Current/Outstanding Speculative Grade Secured Issues With Recovery Ratings



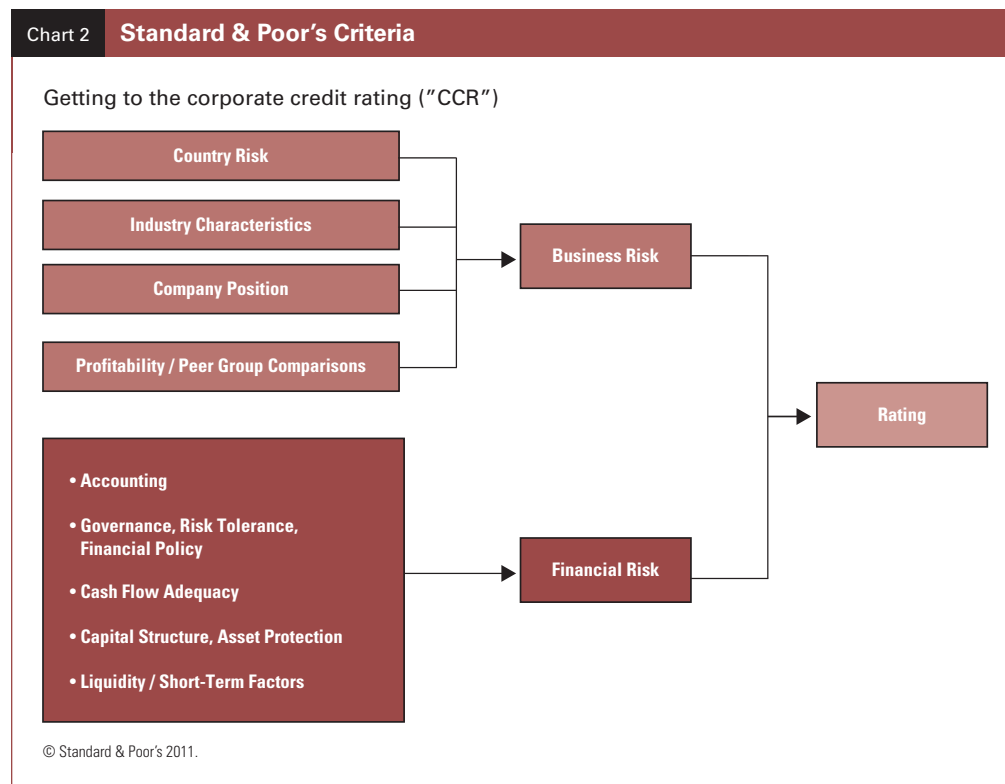
rower's industry, its business niche within that industry, and other largely qualitative factors like the quality of its management, overall strategy, etc.) and "financial risk" factors (cash flow, capital structure, access to liquidity, as well as financial reporting and accounting issues, etc.). The company's ability to meet its financial obligations on time and, therefore, avoid default, is based on a combination of all these qualities, and it is the analyst's job to balance them appropriately in coming up with an overall rating. (See chart 2.)

In assigning its corporate credit ratings, Standard & Poor's is actually grouping the rated companies into categories based on the relative likelihood of their meeting their financial obligations on time (i.e., avoiding default.) The relative importance of the various attributes may vary substantially from one credit to another, even within the same rating category. For example, a company with a very high business risk (e.g., intense competition, minimal barriers to entry, constant technology change, and risk of obsolescence) would generally require a stronger

financial profile to achieve the same overall rating level as a company in a more stable business. The companies that Standard & Poor's rates 'BB', for example, may present a wide range of combinations of business and financial risk, but are all expected to have a similar likelihood of defaulting on the timely payment of their financial obligations. Likewise with 'AA' rated credits, 'B' rated credits, etc.

Over the years, Standard & Poor's has tracked the actual default rates of companies that it has rated. Table 2 shows the cumulative default rates for the past 30 years by rating category. As we might expect, the rate of default increases substantially moving across rating categories. For example, over five years, companies originally rated 'BB' default, as a group, almost four times the rate 'BBB' rated companies do. 'B' and 'CCC' rated companies default at an even accelerated pace.

Saying that a given set of debt issuers in the same rating category have similar characteristics and are equally default-prone does not tell an investor which of the companies in



that rating category *will actually be the ones to default*. No amount of analysis can tell us that, since if we knew for certain that a given company that has the attributes of, for example, a 'BB', were *actually* going to default at some point, it would not, in fact, be rated 'BB', but instead would be rated much lower.

As investors move down the rating scale, they may not know exactly which deals will default, but they surely know that a larger percentage of their deals will default; and they had better be prepared for it. In the syndicated loan market, the market practice has evolved to the point that companies rated 'BBB' and which generally default at the rate of about 2% over five years, are "allowed" by the market to borrow unsecured. The

market is saying, in effect, that it can live with a default rate of that magnitude without having to worry about protecting itself if a default actually occurs. But for 'BB' rated credits, where the likelihood of default occurring is almost four times greater, the market has drawn a line and decided that, for that degree of default risk, it will generally insist on collateral security. Lenders are, in effect, willing to treat a 'BBB' rated credit as though it *will not likely default*. But the presumption is reversed for 'BB' (and below) credits, where the increased default risk is so severe that the market insists on treating every credit as though it *might well default*.

Standard & Poor's recovery ratings take a similar approach by assigning recovery rat-

Table 1 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

*As noted above, recovery ratings in certain countries are capped to adjust for reduced creditor recovery prospects in these jurisdictions. Furthermore, the recovery ratings on unsecured debt issued by corporate entities with corporate credit ratings of 'BB-' or higher are generally capped at '3' to account for the risk that their recovery prospects are at greater risk of being impaired by the issuance of additional priority or pari passu debt prior to default. †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.

Table 2 Global Corporate Average Cumulative Default Rates (1981–2010)							
Rating	—Time horizon (years)—						
	1	2	3	4	5	10	15
AAA	0.00	0.03	0.14	0.26	0.38	0.79	1.09
AA	0.02	0.07	0.15	0.26	0.37	0.82	1.15
A	0.08	0.19	0.33	0.50	0.68	1.84	2.77
BBB	0.25	0.70	1.19	1.80	2.43	5.22	7.71
BB	0.95	2.83	5.03	7.14	9.04	16.54	20.52
B	4.70	10.40	15.22	18.98	21.76	29.94	34.54
CCC/C	27.39	36.79	42.12	45.21	47.64	52.88	56.55

Source: Standard & Poor's Global Fixed Income Research; Standard & Poor's CreditPro®

ings to speculative-grade issuers. While we do not assume that a given deal will default, our analysts—the industry specialists who cover companies on an ongoing basis, working along with the recovery specialist who is assigned to that industry team specifically to do recovery analysis—determine together the most likely default scenario that is consistent with our assessment of the company’s fundamental business and financial risks. In other words, *if this company were to default*, what would be the most likely scenario? They then project what the company’s financial condition would be at the time of default and, equally important, at the conclusion of the workout process. Then they evaluate what the company itself and/or the collateral (which may be the same, but not always) would be worth and how that value would be distributed among the various creditors. (For a detailed description of the analytical methodology used, see the accompanying article in this book, “Criteria Guidelines For Recovery Ratings On Global Industrials Issuers’ Speculative-Grade Debt.”)

Role Of Ratings In The Loan Market

The U.S. leveraged loan market is a rated market, with Standard & Poor’s rating about

70% of all new leveraged loans. This is not surprising, considering that most investors in the U.S. leveraged loan market are nonbank institutional investors, rather than commercial banks. These institutional investors:

- Are accustomed to having ratings on the debt instruments they buy, and
- Often have ratings on their own debt which, in turn, are dependent on the ratings of the underlying loans they purchase.

In addition to the recovery rating itself, with its specific estimate of recovery in the event of default, Standard & Poor’s analysts provide a complete recovery report that explains in detail the analysis, the default scenario, the other assumptions, and the reasoning behind the recovery rating. This allows investors to look behind and, if they wish, even to “reverse engineer” our analysis, selecting what they agree or disagree with, and altering our scenarios to reflect their own view of the company, the industry, or the collateral valuation.

For further information about Standard & Poor’s Recovery Ratings, or to receive the weekly S&P Loan & Recovery Rating Report by email, please contact Bill Chew at 1-212-438-7981 or bill_chew@standardandpoors.com, or visit our Bank Loan & Recovery Rating web site at: www.bankloanrating.standardandpoors.com. ●

Criteria Guidelines For Recovery Ratings On Global Industrials Issuers' Speculative-Grade Debt

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Standard & Poor's Ratings Services has been assigning recovery ratings—debt instrument-specific estimates of post-default recovery for creditors—since December 2003. At that time, we began issuing recovery ratings and analyses for all new secured bank loans in the U.S. Since that time, we have steadily expanded our recovery ratings to cover secured debt issued in other countries and, in March 2008, to unsecured and subordinated debt instruments. This article provides an overview of Standard & Poor's general recovery analysis approach for global Industrials issuers, including specific jurisdictional considerations for the U.S. market. This framework is the basis for our recovery methodology worldwide although, where appropriate, our analysis is tailored to consider jurisdiction-specific features that impact the insolvency process and creditor recovery prospects.

Recovery Ratings For Global Industrials— Definition And Context

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. Standard & Poor's 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 (versus discounted present value recovery) because we believe that discounted recovery is better identified independently by market participants that are best positioned to apply their own preferred discount rate to our nominal recovery. However, in jurisdictions with creditor-unfriendly features, we will cap both

recovery ratings and issue ratings to account for 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, multijurisdictional issues, and potential changes in valuation after a simulated default. Ongoing surveillance through periodic and event-specific reviews help ensure that our recovery ratings remain forward looking by monitoring developments in these issues and by evaluating the impact of changes to a borrower's business risks and debt and liability profile over time.

We acknowledge that default modeling, valuation, and restructuring (whether as part of a formal bankruptcy proceeding or otherwise) are inherently dynamic and complex processes that do not lend themselves to precise or certain predictions. These processes 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 that our methodology of focusing on a company's unique and fundamental credit risks— together with an informed analysis of how the composition and structure of its debt, legal organization, and nondebt liabilities

would be expected to impact lender recovery rates—provides valuable insight into creditor recovery prospects.

In this light, our recovery ratings are intended to provide educated approximations of post-default recovery rates, rather than exact forecasts. Our analysis also endeavors to comment on how the specific features of a company's debt and organizational structure may affect lender recovery prospects. Of course, not all borrowers will default, but our recovery ratings, when viewed together with a company's risk of default as estimated by Standard & Poor's corporate credit rating, can help investors evaluate a debt instrument's risk/reward characteristics and estimate their expected return. Our approach is intended to be transparent (within the bounds of confidentiality), so that market participants may draw value from our analysis itself rather than merely from the conclusion of the analysis.

Recovery Rating Scale And Issue Rating Framework

The table summarizes our enhanced issue rating framework. The issue rating we apply to the loans and bonds of companies with speculative-grade corporate credit ratings is based on the recovery rating outcome for the specific instrument being rated. Issues with a high recovery rating ('1+', '1', or '2') would

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
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*As noted above, recovery ratings in certain countries are capped to adjust for reduced creditor recovery prospects in these jurisdictions. Furthermore, the recovery ratings on unsecured debt issued by corporate entities with corporate credit ratings of 'BB-' or higher are generally capped at '3' to account for the risk that their recovery prospects are at greater risk of being impaired by the issuance of additional priority or pari passu debt prior to default. †Recovery of principal plus accrued interest at the time of default on a nominal basis. §Very high confidence of full recovery resulting from significant overcollateralization or strong structural features.

lead us to rate the loan or bond above the corporate credit rating, while a low recovery rating ('5' or '6') would lead us to rate the issue below the corporate credit rating.

Jurisdiction-Specific Adjustments For Recovery And Issue Ratings

Standard & Poor's due diligence for extending recovery ratings beyond the U.S. has entailed an assessment of how insolvency proceedings in practice in various countries affect post-default recovery prospects. This work has enabled us to consistently incorporate jurisdiction-specific adjustments when we assign recovery and issue ratings outside the U.S. With the help of local insolvency practitioners, we have assessed each jurisdiction's creditor friendliness in theory as well as how the law works in practice. For the latter, we so far lack empirical data, as outside of the U.S. very little reliable historical default and recovery data is available to verify in practice the predictability of insolvency proceedings and actual recovery rates. We will refine and update our analysis and methodology over time as appropriate if more actual loss data and practical evidence becomes available.

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

- Security,
- Creditor participation/influence,
- Distribution of value/certainty of priorities, and
- Time to resolution.

Based on the score reached on each of these factors, we have classified the reviewed countries into three categories, according to their creditor-friendliness. This classification has enabled us to make jurisdiction-specific adjustments to our recovery analysis. Namely, relative to our standard assignment of recovery and debt issue ratings, we cap both recovery ratings and the differential between the issuer credit and debt issue ratings in countries if and to the extent we expect the recovery process and actual recovery rates to be negatively affected by insolvency regimes that favor debtors or other noncreditor constituencies. We believe that by transparently overlaying analytical judgment on top of pure

numerical analysis, we increase the transparency and consistency of our assessments of the impact of countries' insolvency rules—especially those that are less creditor friendly when assigning recovery and issue ratings.

To review the details of our adjustments, the grouping of various countries into groups with similar characteristics, and the extent of our issue-notching caps for each group, see “Jurisdiction-Specific Adjustments To Recovery And Issue Ratings”.

General Recovery Methodology And Approach For Global Industrials

Recovery analytics for Industrials issuers has three basic components: (1) determining the most likely path to default for a company; (2) valuing the company following default; and (3) distributing that value to claimants based upon the relative priority of each claimant. Our analytical process breaks down these components into the following steps:

- Establishing a simulated path to default;
- Forecasting the company's profitability and/or cash flow at default based on our simulated default scenario;
- Determining an appropriate valuation for the company following default;
- Identifying and estimating debt and nondebt claims in our simulated default scenario;
- Determining the distribution of value based on relative priorities;
- Assigning a recovery rating (or ratings), including a published “recovery report” that summarizes our assumptions and conclusions.

Establishing a simulated path to default

This is a fundamental part of our recovery analysis because we must first understand the forces most likely to cause a default before we can estimate a reasonable valuation given default. This step draws on the company and sector knowledge of Standard & Poor's credit analysts to formulate and quantify the factors most likely to cause a company to default given its unique business risks and the financial risk inherent in the capital structure that we are evaluating in our default and recovery analysis.

At the outset of this process, we deconstruct the borrower's 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 the most likely path to a payment default.

Forecasting profitability and/or cash flow at default

The simulated default scenario is our assessment of the borrower's most likely path to a payment default. The "insolvency proxy" is the point along that path at which we expect the borrower to default. In other words, the insolvency proxy is the point at which funds available plus free cash flow is insufficient to pay fixed charges:

$$\text{(Funds available + Free cash flow) / Fixed charges} \leq 1.0$$

The terms in this equation are defined as:

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 Standard & Poor's adjustments for operating leases.

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

- Scheduled principal amortization (We generally do not include "bullet" or "ballooning" maturities as fixed charges, as lenders typically would expect such amounts to be refinanced and would presumably be reluctant to force a company into default that can otherwise comfortably service its fixed charges. Consequently, our default and recovery modeling will typically assume that additional business and cash flow deterioration is necessary to trigger a default.);

- Required cash interest payments (including assumed increases to LIBOR rates on floating-rate debt and to the margin charged on debt obligations that have maintenance financial covenants); and
- Other cash payments the borrower is either contractually or practically obligated to pay that are not already captured as an expense on the borrower's income statement. (Lease payments, for example, are accounted for within free cash flow and, thus, are not considered a fixed charge.)

The insolvency proxy at the point of projected default may be greater than 1.0x in a few special circumstances:

- For "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 may rationally be expected to retain a greater amount of cash (e.g., to prepare for a complex, protracted restructuring; if it is in a very capital-intensive industry; or if it is in a jurisdiction that does not allow for super-priority standing for new credit in a post-petition financing); and
- When a borrower's financial covenants have deteriorated beyond the level at which even the most patient lender could tolerate further amendments or waivers. (Lenders with no financial maintenance covenants have effectively surrendered this option and have reduced their ability to influence company behavior.)

Conversely, free cash flow may decline below the insolvency proxy when the borrower's operating performance is expected to continue to deteriorate due to cyclicity or business model contraction resulting from the competitive and economic conditions assumed in the simulated default scenario. In any event, our analysis will identify the level of cash flow used as the basis for our valuation.

Determining valuation

To help us determine an appropriate valuation for a company (given our simulated default scenario), we may 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. In addition, we may use a combination of the discrete and enterprise valuation methods when we believe that a company will reorganize, but that its debt and organizational structure provides certain creditors with priority claims against particular assets or subsidiaries. For example, Standard & Poor's will consider whether a company's decision to securitize or not securitize material assets impacts the value available to distribute to other creditors.

Market multiples. The key to valuing a firm using a market multiples approach is to select appropriate comparable companies, or "comps." The analysis should include several comps that are similar to the firm 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 is often required to adjust for differences in size, business profiles, and other attributes. In addition, in the context of a recovery analysis, our 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 firms that have reorganized due to circumstances consistent with our simulated default scenario. In practice, however, the existence of such "emergence" multiple comps is rare. As a result, our analysis often turns to "transaction" or "purchase" multiples for

comparable firms because these are generally 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). This is because we believe that forward multiples, which are generally lower because they 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 firms can be useful because they allow us to track how multiples have changed 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 firm projected to default in a cyclical trough may warrant a higher multiple than one expected to default at a cyclical midpoint. Furthermore, two companies in the same industry may merit meaningfully different multiples if their simulated default scenarios are very different. For example, if one is highly levered 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 (DCF). Standard & Poor's DCF valuation analysis for recovery analytics generally uses a three-stage model. The first stage is the simulated default scenario; the second stage is the period during insolvency; and the third stage represents the long-term operating performance of the reorganized firm. Our valuation is based on the third stage, which typically values a company

using a perpetuity growth formula, which contemplates a long-term steady-state growth rate deemed appropriate for the borrower's business. However, the third stage may also include specific annual cash flow forecasts for a period of time following reorganization before assigning a terminal value through the perpetuity growth formula. In any case, the specifics underlying our cash flow forecast and valuation are outlined in Standard & Poor's recovery reports.

Discrete asset valuation. We value the relevant assets by applying industry- and asset-specific advance rates in conjunction with third-party appraisals (when we are provided with the appraisals).

Identifying and estimating the value of debt and nondebt claims

After valuing a company, we must then identify and quantify the debt obligations and other material liabilities that would be expected to have a claim against the company following default. 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;
- Other nondebt claims such as taxes payable, certain securitization programs, trade payables, deficiency claims on rejected leases, litigation liabilities, and unfunded post-retirement obligations.

Our analysis of these claims and their potential values strives to consider 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 paid prior to our simulated default and by assuming that all committed debt, such as revolving credit facilities and delayed draw term loans, is fully funded. For asset-based lending (ABL) facilities, we will consider whether the borrowing base formula

would allow the company to fully draw the facility in a simulated default scenario. For letters of credit, especially those issued under dedicated synthetic letter of credit tranches, we will assess whether these contingent obligations are likely to be drawn following default. 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 regulatory credit risk capital requirements.

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 impact 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, in turn, could impact all aspects of our recovery analysis (i.e., the most likely path to default, valuation given default, and loss given default). Consequently, changes to a company's debt structure are treated as events that require a reevaluation of our default and recovery analysis. This is a key aspect of our ongoing surveillance of our default and recovery ratings. We do, however, make some exceptions to this approach. Such exceptions will be outlined in our recovery reports and generally fall under two categories:

- Permitted, but uncommitted, incremental debt may be included as part of our default and recovery analysis if this is consistent with our expectations and our underlying corporate credit rating on a given issuer.
- Our default and recovery analysis may assume the repayment of near-term debt maturities if the company is expected to retire these obligations and has the liquidity to do so. Similarly, principal prepayments—

whether voluntary or part of an excess cash flow sweep provision—may be considered for certain credits when deemed appropriate. Otherwise, we generally assume that debt that matures prior to our simulated default date is rolled over on similar terms but at current market rates.

Our analytical treatment and estimates for bankruptcy-related and other nondebt claims in default is generally specific to the laws and customs of the jurisdictions involved in our simulated default scenario. Please refer to Appendix 1 for a review of our approach and methodology for these claims in the U.S.

Determining distribution of value

The distribution follows a “waterfall” approach that reflects the relative seniority of the claimants and will be specific to the laws, customs, and insolvency regime practices for the relevant jurisdictions for a company. For example, the quantification and classification of bankruptcy-related and nondebt claims for insolvencies outside of the U.S. might be very different from the methodology for U.S. Industrials companies discussed in the Appendix. Furthermore, local laws and customs may warrant deviations from the waterfall distribution we follow in the U.S. Where relevant, we will publish our guidelines and rationale for these differences before rolling out our unsecured recovery ratings in these jurisdictions. In the U.S., our general assumption of the relative priority of claimants is as follows:

- Super-priority claims, such as DIP financing,
- Administrative expenses,
- Federal and state tax claims,
- Senior secured claims,
- Junior secured claims,
- Senior unsecured claims,
- Subordinated claims,
- Preferred stock,
- 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 valid only to the extent that the collateral supporting such claims is equal to, or greater than, the amount of the claim (including higher priority and pari passu claims). If the

collateral value is insufficient to fully cover a secured claim, the uncovered amount or “deficiency balance” will be pari passu with all other senior unsecured claims.

- Structural issues and contractual agreements can also alter the priority of certain claims relative to each other or to the value attributable to specific assets or entities in an organization.

As a result of these caveats, the recovery prospects for different debt instruments of the same type (whether they be senior secured, senior unsecured, senior subordinated, etc.) might be very different, depending on the structure of the transactions. While the debt type of an instrument may provide some indication as to its relative seniority, it is the legal structure and associated terms and conditions that are the ultimate arbiter of priority. Consequently, a fundamental review of a company’s debt and legal entity structure is required to properly evaluate the relative priority of claimants. This requires an understanding of 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;
- Non-guarantor 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 non-guarantor 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 non-guarantor subsidiaries (whether due to 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.

The presence of obligations with higher-priority liens on certain assets means that the enterprise value available to other creditors must be reduced to account for the distribution of value to satisfy these creditors first. In most instances, asset-specific secured debt claims (such as those previously listed) are structured to ensure full collateral coverage even in a default scenario. As such, our analysis will typically reduce the enterprise value by the amount of these claims to determine the remaining enterprise value available for other creditors. That said, there may be exceptions that will be considered on a case-by-case basis if the amounts are material. Well-structured secured bank or bond debt that does not have a first lien on certain assets will get second-priority liens on assets that are significant and may have meaningful excess collateral value. 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 non-guarantor 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 break-out 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. Furthermore, 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.

The exclusion of other material assets (other than whole subsidiaries or subsidiary stock) from the collateral pledged to support secured debt must also be incorporated into our analysis. The value of such assets is typically determined using a discrete asset valuation approach, and our estimated value and related assumptions will be disclosed in our recovery report as appropriate. We expect the value of excluded assets 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 impact 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 relative priority of the claims, subject to structural and contractual considerations, so that a class of claims will not receive any distribution until all classes above it are fully satisfied), which is assumed by Standard & Poor’s methodology. In practice, however, 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 intercreditor 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 represents a potentially more meaningful deviation from the distribution of value according to absolute priority. In a substantive consolidation, the entities of a corporate group may be treated as a single consolidated entity for the purposes of a bankruptcy reorganization. This effectively would eliminate the credit support provided by unsecured guarantees or the pledge of intercompany loans or subsidiary stock, and dilutes the recovery prospects of creditors that relied on these features to the benefit of those that did not. Even the threat of substantive consolidation may result in a negotiated settlement that could affect recovery distribution. While substantive consolidation can meaningfully impact the recovery prospects of certain creditors, it is a discretionary judicial doctrine that is only relevant in certain situations. It is difficult to predict whether any party would seek to ask a bankruptcy court to apply it in a specific case, or the likelihood that party

would succeed in persuading the court to do so. As such, our analysis does not evaluate the likelihood of substantive consolidation, though we acknowledge that this risk could affect recoveries in certain cases.

Assigning recovery ratings

We estimate recovery rates by dividing the portion of enterprise or liquidation value projected to be available to cover the debt to which the recovery rating applies, by the estimated amount of debt (principal and prepetition interest) and pari passu claims outstanding at default. We then map the recovery rate to our recovery rating chart to determine the issue and recovery ratings. Standard & Poor’s accompanies its recovery ratings with written recovery reports, which identify the simulated payment default, valuation assumptions, and other factors on which the recovery ratings are based. This disclosure is intended to improve the utility of our analysis by providing investors with more information with which to evaluate our conclusions and to allow them to consider different assumptions as they deem appropriate.

Surveillance of recovery ratings

After our initial analysis at debt origination, we monitor material changes affecting the borrower and its debt and liability structure to determine if the changes might also alter creditor recovery prospects. This is essential given the dynamic nature of credit in general and default and recovery modeling in particular. Therefore, a fundamental component of recovery analysis is periodic and event specific surveillance designed to monitor developing risk exposures that might affect recovery. Any material changes to our default and recovery ratings or analysis will be disclosed in updates to our recovery reports. Factors that could impact our default and recovery analysis or ratings include:

- Acquisitions and divestitures;
- Updated valuation assumptions;
- Shifts in the profit and cash flow contributions of borrower, guarantor, or non-guarantor entities;
- Changes in debt or the exposure to non-debt liabilities;

- Intercreditor dynamics; and
- Changes in bankruptcy law or case histories.

Conclusion

We believe that our recovery ratings are beneficial because they allow market participants

to consider disaggregated analyses for probability of default and recovery given default. We also believe our recovery analysis may provide investors insight into how a company's debt and organizational structure may affect recovery rates. ●

Appendix: U.S. Industrials Analysis Of Claims And Estimation Of Amounts

This appendix covers Standard & Poor's analytical considerations regarding the treatment of bankruptcy-specific and other nondebt claims in our default and recovery analysis of U.S.-domiciled Industrials borrowers. Our approach endeavors to consider the borrower's particular facts and circumstances, as well as the expected impact on the claims as a result of the simulated default scenario. Still, the potential amount of many of these claims is highly variable and difficult to predict. In addition, these claims are likely to disproportionately affect the recovery prospects of unsecured creditors because most of these claims would be expected to be classified as general unsecured claims in bankruptcy. This contributes to the historically higher standard deviation of recovery rates for unsecured lenders (relative to secured lenders).

While these issues make projecting recovery rates for unsecured debt challenging, we believe that an understanding of the analytical considerations related to these claims can help investors make better decisions regarding an investment's risks and recovery prospects. Our recovery reports endeavor to comment on our assumptions regarding the types and amounts of the claims as appropriate.

Bankruptcy-specific priority claims

Debtor in possession financing. DIP facilities are usually super-priority claims that enjoy repayment precedence over unsecured debt and, often, secured debt. However, it is exceedingly difficult 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 or partially repay some pre-petition secured debt. Furthermore, the presence of DIP financing might actually help creditor recovery

prospects by allowing companies to restructure their operations and preserve the value of their business. As a result of these uncertainties, estimating the impact of a DIP facility is generally 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 company's size and the complexity of its 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 pre-packaged 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 as follows:

- 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 by Standard & Poor's);
- 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 may be 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). We also expect that, while such claims will normally be paid before senior secured claims, their overall amount is seldom material enough to impact lender recoveries. Therefore, we acknowledge that tax claims may indeed be priority claims, but we generally do not, at origination, reduce our expectation for lenders' recovery by estimating the amount of potential tax claims.

Swap termination costs. The 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 both the type of contract and the type of counterparty fall within certain statutory provisions). In addition to not being subject to the automatic stay that generally precludes creditors from exercising their remedies against the debtor, 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. While we acknowledge the potential for such claims, quantifying such claims will usually be impractical and beyond the scope of our analysis at origination. That said, making estimates for these claims may be more practical in surveillance as a company approaches bankruptcy and the potential impact of these types of claims becomes clearer.

Cash management obligations. Obligations under automated clearing house programs and other cash management services provided by a borrower's banks may be incremental to its exposure to its bank lenders under its credit facilities. In some cases, these obligations may be material and may be secured on a *pari passu* basis by the bank collateral. When we are aware of these situations, our

estimates for these claims will be disclosed in our recovery reports.

Regulatory and litigation claims. These claims are fact- and borrower-specific and are expected to be immaterial for the vast majority of issuers. For others, however, they may play a significant role in our simulated default scenario and represent a sizable liability that impairs the recovery prospects of other creditors. Borrowers that fall into this category may be in the tobacco, chemical, building materials, environmental services, mining, or pharmaceutical industries. Even within these sectors, however, we are most likely to factor these issues into our analysis in a meaningful way when a borrower is either already facing significant exposure to these liabilities or is unlikely to default without a shock of this type to its business (such as a high speculative-grade-rated company with low to moderate leverage and relatively stable cash flow).

After determining whether it is reasonable to include such claims in our default and recovery analysis, we are left with the challenge of sizing the claims and determining how they might impact creditor recovery prospects. Unfortunately, the case history is very limited in this area and does not offer clear guidelines on how to best handle these inherent uncertainties. As such, we tailor our approach on a case-by-case basis to the borrower's specific circumstances to help us reach an appropriate solution. When significant, our approach and assumptions will be outlined in our recovery report so that investors can evaluate our treatment, and consider alternative assumptions if desired, as part of their investment decision. We note that claims in this category would typically be expected to have general unsecured status in a bankruptcy, although they may remain ongoing costs of a reorganized entity and thus reduce the value available to other creditors.

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, although the sale of the assets may affect the value available to other creditors. When a discrete asset valuation approach is used and the sold receivables continue to be reported on the company's balance sheet, we will consider the securitized debt from such programs to be a secured claim with priority on the value from the receivables within the securitization.

Securitizations may also be in the form of a future flow-type structure, 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 have a claim against our estimated valuation. Such transactions effectively securitize all or a part of the borrower's future earnings, and the related claims would have priority claim to the value stemming from the securitized assets. This claim would diminish the enterprise value available to other corporate creditors. Such transactions are typically highly individualized, and the amount of the claims and the value of the assets in our simulated default analysis are evaluated on a case-by-case basis.

Trade creditor claims. Typically, trade creditor claims are unsecured claims that would rank *pari passu* with a borrower's other unsecured obligations. However, because a borrower's viability as a going concern hinges upon continued access to goods and services, many 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, which preserves the value of the estate and enhances the recovery prospects for all creditors. Consequently, our analysis does not make an explicit estimate for trade creditor claims in bankruptcy for companies that are expected to reorganize, but rather, it assumes that these costs continue to be paid as part of

the company's normal working capital cycle (and, thus, are already accounted for in our valuations using market multiples or DCF). For firms expected to liquidate, an estimate of accounts payable will be made, with the amount treated as an unsecured claim.

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 must discontinue using the asset, and the lessor may file a general unsecured claim against the estate. As a result, we must estimate a reasonable lease rejection rate for the firm given 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. If leases are material, we may further evaluate whether our knowledge of a company's portfolio of leased assets is likely to result in a higher or lower level of unattractive leases (and rejections) in a default scenario. For example, if a company's leased assets are unusually old, underutilized, or priced above current market rates, then a higher rejection rate may be warranted. In practice, this level of refinement in our analysis will be most relevant when a company has a substantial amount of lease obligations and a significant risk of near-term default. Uneconomical leases that are

amended through renegotiation in bankruptcy are considered to be rejected.

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 re-leasing 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, Standard & Poor's quantifies 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 estimated on a case-by-case basis, with our assumptions disclosed in our recovery reports. This is necessary 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). Furthermore, 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) due to 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 the early 2000 time period.

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. Principally, these claims would arise from the rejection of labor contracts, the voluntary or involuntary termination of defined benefit pension plans, or the modifi-

cation of retiree benefits. Because these types of employee arrangements are not common in many industries, these liabilities would only be relevant for certain companies. Where relevant, the key issue is whether these obligations are likely to be renounced or changed after default, since no claim results if they are unaltered. Of course, employment-related claims are more likely to arise when a company is at a competitive disadvantage because of the costs of maintaining these commitments. Even then, some past bankruptcies suggest that some companies may not use the bankruptcy process to fully address these problems. What is clear, however, is that employment-related claims may significantly dilute recoveries for the unsecured creditors of certain companies and that these risks are most acute for companies that are grappling with burdensome labor costs. To reflect this risk, we are likely to include some level of employment-related claims for companies where uncompetitive labor or benefits costs are a factor in our simulated default scenario.

Collective bargaining agreement rejection claims. A borrower that has collective bargaining agreements (CBA), including above-market wages, benefits, or work rules, is likely to seek to reject these contracts in a bankruptcy. In order to reject a CBA, the borrower must establish, and the bankruptcy court must find that the borrower has proposed, modifications to the CBA that are necessary for its successful reorganization. In addition, the court must find that all creditors and affected parties are treated fairly and equitably, that the borrower has bargained fairly with the relevant union, that the union rejected the proposal without good cause, and that equity considerations clearly favor rejection. Proceedings to reject a CBA typically result in a consensual reduction in wages and benefits, and modified work rules under a replacement or modified agreement prior to the bankruptcy court's decision on the motion to reject.

If a CBA were rejected, the affected employees would have unsecured claims for damages that would be limited to one year's compensation plus any unpaid compensation due under the CBA. However, if a CBA were modified through negotiation without

rejection, the damages for lost wages and benefits and modified work rules may not be limited to this amount.

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 Corp. (PBGC) as the agency that insures plan benefits. Typically, any termination during bankruptcy will be a “distress termination,” in which the plan assets are, or 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. For example, a borrower may elect to maintain underfunded plans, or may not succeed in terminating a plan, if it fails to demonstrate that it would not be able to pay its debts and 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.

Retiree benefits modification claims. Non-pension retiree benefits are payments to retirees for medical, surgical, or hospital

care benefits, or benefits in the event of sickness, accident, disability, or death. The requirements for modifying these benefits for plans covered under a union contract during bankruptcy are similar to the requirements for the rejection of a CBA, but they may be modified by order of the bankruptcy court without rejecting the plan or program under which the benefits are provided in its entirety. However, these obligations are often amended prior to bankruptcy for companies that are placed at a competitive disadvantage because of these costs. As such, we must consider whether the borrower has modified, or is likely to modify, the benefits prior to bankruptcy.

In the case of benefits provided to employees that were not represented by unions, the borrower may be able to revise the benefits prior to bankruptcy with little or no negotiation with the retirees. For union retirees, benefit modifications prior to bankruptcy likely would occur in the context of concessions in negotiations with the relevant union. In either case, modifications prior to bankruptcy would not result in claims in bankruptcy that could dilute recoveries. If the borrower reduces its retiree benefits liability prior to bankruptcy, further modifications in bankruptcy may result in a smaller unsecured claim than if it had entered the proceeding with a greater liability. If we conclude that the borrower will modify its retiree benefits prior to bankruptcy, our recovery analysis will consider the likely effect of that modification on the borrower’s reduced benefit liability in bankruptcy. Conversely, if we conclude that these plans will be modified in bankruptcy, but not before, then the potential liability will be more significant. ●

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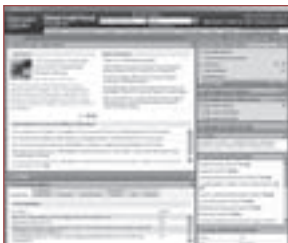
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