

Credit Market Research

Defaults Surge, Recoveries Sink in 2009

Understanding the Fundamental and Cyclical Drivers of Corporate Recovery Rates

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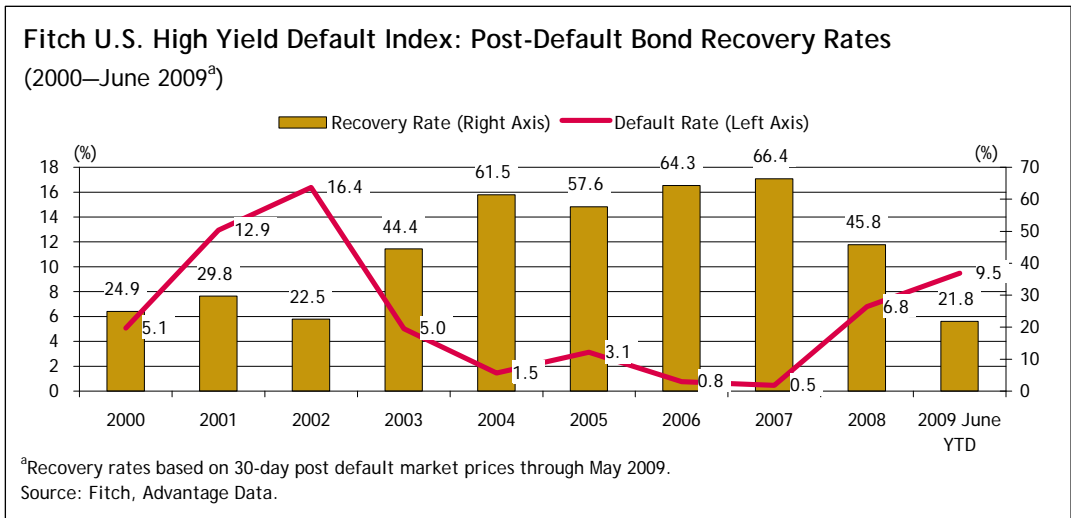
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Summary

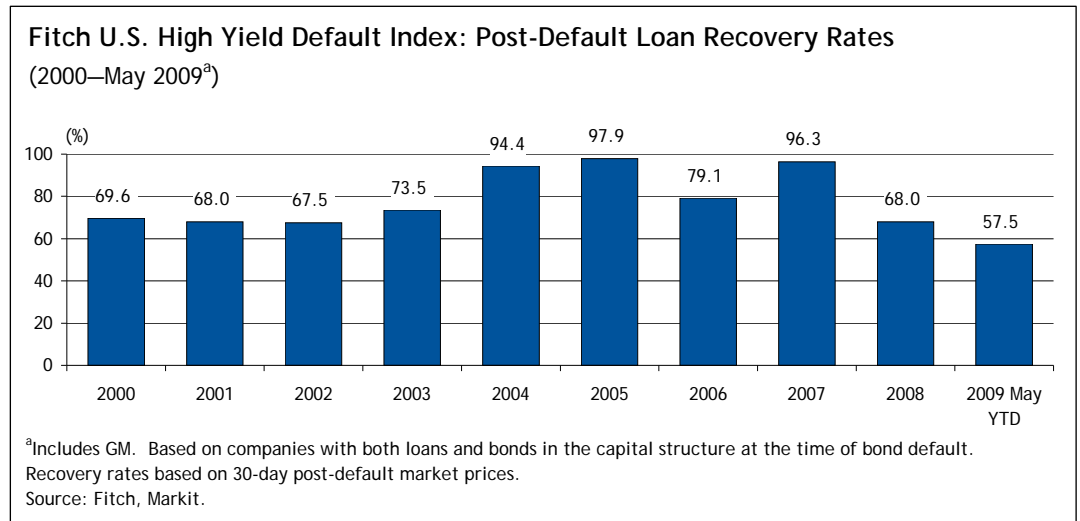
A surge in corporate defaults, a consequence of the financial and economic crisis, is unmistakably under way. The U.S. high yield default rate, which a year ago stood at just 2.4% on an annual basis, soared to 9.5% in the first six months of 2009. Just as troubling, while some signs have emerged that the U.S. economy is stabilizing, Fitch believes that defaults will not ease in 2009 or likely even 2010. The record number of companies highly vulnerable to default, with capital structures designed for booming economic conditions and many in industries facing significant challenges, would need an exceptionally strong economic rebound accompanied by forgiving credit markets in order to avoid some form of debt restructuring over the coming year. The U.S. high yield default rate is expected to end this year in a range of 15%–18%.

In this environment, recovery rates, the true measure of loss associated with defaults, are of paramount interest. In this new study Fitch seeks to demystify recovery rates, offering a broad look at their behavior shortly after default, at emergence from bankruptcy and at varying points in the credit cycle. While the study offers insight into the many complex drivers of recovery outcomes using the last cyclical surge in defaults as a frame of reference, importantly, it provides perspective on current conditions. Recovery rates on bonds and loans have dropped precipitously in early 2009, averaging 21.8% and 57.5%, respectively, well below levels recorded in recent years, and reminiscent of the 2000–2002 period. In fact, due to structural issues associated with the leveraged loan issuance boom of 2005–2007, loan recovery rates are showing an even worse trend than in the last downturn. While no two cycles are precisely alike —



the current one in particular being both severe and unique on a number of fronts — Fitch’s report seeks to present data and analysis on the fundamental and cyclical factors that broadly influence corporate recovery outcomes, offering a multidimensional view of recovery rates — default to emergence, market price to bankruptcy resolution, firm value to debt instrument and importantly, peak to trough. The study is based on the firm-wide and instrument-specific recovery outcomes of 116 companies in Fitch’s U.S. High Yield Default Index that filed and emerged from bankruptcy from 2000–2006, affecting \$203 billion in debt and \$446 billion in assets across a diverse group of issuers and industries. Among the study’s main findings:

- The average company emerged from bankruptcy with a firm value equal to 53% of its pre-bankruptcy asset value and just 35% of its pre-bankruptcy debt. However, the distribution of outcomes was fairly wide, with at least a quarter of the companies emerging with 30% or less of their pre-bankruptcy asset value and another quarter emerging with 70% or more of their pre-bankruptcy asset value intact.
- Cyclicity affected both firm-wide and debt-specific recoveries. Companies that defaulted in the robust 2005–2006 period, for example, experienced stronger firm-wide recoveries than companies that defaulted in the grim 2001–2002 years. However, the variability in firm-level recoveries may also have been influenced by the type of defaults that occurred during the two periods. In particular, beyond the business cycle, serial defaults in sectors facing systemic challenges further depressed firm-wide and debt-specific recovery rates in the 2001–2002 downturn. This trend is clearly visible in the current batch of defaults, with several troubled sectors (e.g., autos, media) facing deep declines in market values and producing very weak recoveries.
- Fitch observed that bankruptcy outcomes mirrored valuation trends in the broader market surrounding the time of the defaults.
- Fitch also found that companies whose main problem entering bankruptcy consisted mostly of excessive leverage (as opposed to more insidious business issues) often experienced the best firm-level recoveries. However, debt-specific recoveries depended on the extent to which the companies were overlevered going into bankruptcy.
- The presence of tangible assets did not guarantee strong recovery outcomes, especially in sectors facing overcapacity.
- The smallest companies in Fitch’s study experienced the strongest recoveries. The median emergence firm value to pre-bankruptcy asset value for companies with \$500 million or less in assets entering bankruptcy was 0.71, versus 0.49 for companies with assets from \$500 million to \$2 billion. This relationship held even when excluding large telecommunication companies.
- When examining whether the debt mix had any influence on firm-wide recoveries, Fitch found that the absence of senior secured loans from the capital structure appeared to depress emergence firm value. Companies with just bonds in the debt structure experienced below-average firm-wide recoveries.
- Debt cushion provided a very substantial support for senior secured lenders and contributed to robust emergence recovery rates on loans. Senior secured debt (consisting mostly of senior secured loans) represented, on average, less than 40% of total debt for the companies in Fitch’s study. The average recovery rate based on the emergence prices of senior secured loans was 84% of par, compared with 43%



for unsecured bonds. Bankruptcy documents placed senior secured loan recovery rates even higher, at an average of 93%.

- Fitch observed that emergence prices are excellent but not perfect proxies of bankruptcy resolution recovery rates. In particular, the form of recovery (whether cash, debt, equity or warrants), market liquidity, and turning points in an industry or economic cycle can lead to divergent results when measuring recoveries using the two approaches.
- Fitch found that in the period covered by the study, companies with the weakest emergence firm values entered bankruptcy with relatively little bank debt, suggesting that some mechanism, perhaps covenants, allowed senior secured lenders to reduce or avoid exposure to weak credits prior to bankruptcy. However, diminished debt cushions and a pronounced erosion in traditional loan covenants — two trends that accompanied the leveraged loan issuance boom of 2005–2007, are proving to be detrimental to loan recovery rates in this downturn. The average 30-day post-default recovery rate on loans in Fitch’s U.S. High Yield Default Index was just 57.5% in the first five months of 2009, the lowest tally recorded by Fitch in a decade, as shown in the chart above. Changes in underwriting standards can have a very meaningful impact on recovery outcomes.

Recovery 101

What Is the Measure of Recovery?

There are multiple ways to measure recovery on defaulted corporate debt. Each approach has pros and cons, but in the end all are linked and reflect some assessment of firm value and structure at different points in time. One of the goals of this new study, in addition to discussing the fundamental drivers of recovery rates, is to examine and describe the observed relationship between the three main measures of recovery, namely, the price of the defaulted bonds and loans shortly after default (typically 30 days after the affected debt becomes non-performing); the price of the debt instruments at emergence from bankruptcy; and the recovery outcomes of the same pre-petition debt instruments as determined by the bankruptcy process.

In this study, emergence refers to the time after the plan has been confirmed by the court (once all the requisite creditors have voted to approve the plan), but before the pre-petition instruments are cancelled and replaced with new debt and equity. In essence, once the plan has been confirmed, the market value of the pre-petition loans

and bonds should reflect quite closely the court-determined recovery rates, and they do as shown by Fitch's study.

Among the three main methods of measuring and analyzing recovery rates, the 30-day post-default price

is the most referenced in the U.S. because it is relatively easy to observe and is considered a good proxy of the present value of ultimate recovery (Fitch's study confirms that it is surprisingly robust). Since 2000, Fitch has tracked the 30-day recovery price of roughly 1,300 defaulted loans and bonds in its U.S. High Yield Default Index. A view of the post-default recovery rates since 2000 is shown in the charts on pages one and three. It is quite apparent in this macro view of annual default and recovery trends that recovery rates are anything but static. When defaults surge, for example, recovery rates tend to fall well below average. This is the unfortunate result of a simple, fundamental relationship: all the factors that drive up defaults, such as weak economic activity and tight credit, also simultaneously depress company valuations. Similarly, recovery rates on the small batch of defaults that accompany strong economic periods tend to be very robust.

Measures of Recovery

- 30-Day Post-Default Market Price
- Emergence Price of Pre-Petition Instruments
- Bankruptcy Resolution Derived Recoveries
- Market Price of Settlement Instruments

To assess the validity and general accuracy of the 30-day price relative to ultimate recovery, and to study the fundamental drivers of recovery values upon emergence from bankruptcy — based on both market prices at emergence and on actual bankruptcy resolution data — Fitch matched company-specific financial and non-financial descriptive data such as year of default, year of emergence, industry, debt structure, bankruptcy type, asset size, and debt composition, among others, with the 30-day and emergence prices of the affected loans and bonds. Fitch also paired these variables with the recovery values attributed to pre-petition loans and bonds as a result of the bankruptcy process (i.e., how the court-determined firm value, or alternatively, enterprise value, was allocated to the various pre-petition claims according to U.S. bankruptcy law). In the cases examined by Fitch, debt claims were consistently paid in order of their seniority and security status. In other words, priority of payment, the centerpiece of U.S. bankruptcy law, prevailed.

Another item worth noting — and, in fact, quite important in order to fully understand recovery outcomes — is that recovery can come in many forms: cash, debt, equity or warrants. Fitch confirmed a well-documented pattern: the quality of the recovery of pre-petition claims typically erodes with the decreased seniority of the claims. The following table on page 5 shows this most vividly. For the companies in the study, Fitch tallied how often cash, new debt, equity or warrants appeared as a payment source across the three main pre-petition seniority types: senior secured, senior unsecured and subordinated. Equity and warrants appeared as a payment type roughly 67% of the time across subordinated bonds, and 22% of the time as a payment source across senior secured debt (whether alone or in combination with other payment types). With recovery often in the form of equity, it is not surprising that at emergence the value of pre-petition instruments might deviate from the firm value established by the court — the market's view of the reorganized company's prospects (reflected in any equity stake) may at that point be different from the court's assessment.

The topic of recovery clearly has substantial nuance. In fact, while this study explores the three main methods of measuring recovery — namely, 30-day post-default prices, the emergence prices of pre-petition instruments, and finally, the recovery outcomes as per the bankruptcy process — another possibility is to follow the trading prices of

Recovery Quality — Frequency of Payment Type
(%)

Payment Source	Senior Secured	Senior Unsecured	Subordinated
Cash	48	33	25
New Debt	30	14	8
Equity	20	51	48
Warrants	2	3	19

Source: Fitch, SEC filings.

the bankruptcy settlement instruments (the newly issued debt and equity of the reorganized company) and see how those are valued some time after the company emerges from bankruptcy (with the appropriate timing also subject to debate). Fitch believes the two most relevant figures from the viewpoint of traditional debt investors are the trading prices shortly after default (since some investors will choose to sell their positions once the debt becomes non-performing), and the emergence prices of the same bonds and loans for those investors who choose to hold on through the bankruptcy process. The focus of this study is to examine the fundamental drivers of firm value at emergence and how that affects the two measures just noted.

Firm Value — The Critical Variable

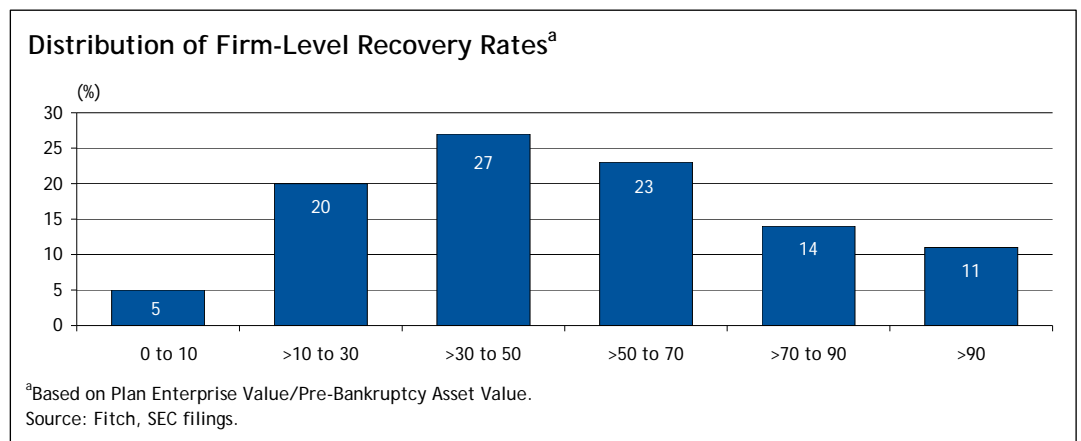
It could be said that all financial theory ultimately deals with the challenge of valuation, and the task is considerably more difficult when dealing with distressed assets or companies. The role of valuation is particularly important for bondholders whose claims are typically unsecured and junior to senior secured bank loans, and are therefore highly sensitive to any residual firm value left after senior claims are satisfied. The second key recovery variable therefore is structure, or understanding the specific characteristics of the various creditor claims, including seniority, collateral and debt cushion, and the role that these attributes have in determining what portion of firm value is contractually available to satisfy claims. However, valuation presents the bigger challenge since it involves estimating the ability of distressed companies, often in troubled sectors, to generate cash flow in the future under different capital and operating structures and business conditions.

Fitch’s review of firm value outcomes for a diverse group of 116 companies that filed and emerged from bankruptcy from 2000–2006 revealed that the average company emerged from bankruptcy with a firm value equal to 53% of its pre-bankruptcy asset value. Fitch examined bankruptcy disclosure documents and recorded for each company the court-determined assessment of firm value or enterprise value that was used to satisfy the various debt claims. Fitch then compared this court-determined firm value to the stated book value of each company’s assets just prior to filing for bankruptcy.

While the average company experienced a firm-wide recovery of its pre-bankruptcy asset value of 53%, the distribution of firm value to pre-bankruptcy asset value was wide, with a quarter of the companies emerging with firm values of 30% or lower of pre-bankruptcy assets, and another quarter of the companies emerging with firm values of 70% or higher of pre-bankruptcy asset value. In other words, some companies saw the bulk of their asset value wiped away in bankruptcy while others experienced robust firm-wide recoveries. Not surprisingly, the variability in firm value had a very meaningful effect on loan and bond recovery rates. Companies that emerged with deeply discounted firm values produced the biggest losses for senior secured lenders and bondholders, while companies that emerged with relatively strong firm values saw robust recovery rates across loans and bonds. The variability in firm value had the biggest impact on bondholders. The median recovery rate of unsecured bonds in the

bottom quartile of firm value outcomes was 15% of par compared with 63% of par for unsecured bonds in the top quartile.

Fitch also found that the average company emerged with just 35% of its pre-bankruptcy debt. The Characteristics table on page 7 offers a detailed look at the average and median profile of the companies in Fitch’s study and, importantly, the relationship between pre-bankruptcy capital structure, emergence firm value (again, directly from the bankruptcy documents) and the recoveries of loans and bonds. As shown, for the average company, emergence firm value or enterprise value was sufficient to cover just 70% of pre-bankruptcy debt. It is clear from this figure that any equity in these companies was essentially wiped out. The median coverage of pre-bankruptcy debt with emergence firm value was even lower at 61%.



The Capital Structure section of the table reveals how structure then played a role in recovery outcomes for loans and bonds. With senior secured debt representing, on average, 38% of total debt (or a median of 37%), in most cases there was enough firm value or enterprise value to fully cover senior secured debt. Both senior secured bonds and senior secured loans enjoyed strong recoveries, but recovery outcomes were lower across secured bonds than secured loans. It is difficult to attribute this result to any particular factor since there were few observations of senior secured bonds, and in many cases the companies studied had both senior secured loans and senior secured bonds in the capital structure. It is likely, however, that the lower recoveries on secured bonds had to do with lower quality collateral or simply limited collateral.

Focusing on the median results, the Characteristics table also shows that less than half the companies in Fitch’s study had subordinated bonds in the capital structure. That is why the median subordinated debt/total debt is zero while the average in the table is 0.21. A view of the debt distribution of the companies in Fitch’s study is available in the Firm-Level Recovery Versus Debt Mix table at the bottom of page 10. In many cases, there was little enterprise value available to cover subordinated bonds, which — both from the plans and based on emergence prices — had median recovery rates in the low teens. (As shown in the table above, 14% of par was the plan median and 11% of par was the emergence price median for subordinated bonds.)

The overall strong relationship between recovery outcomes from actual bankruptcy documents and the emergence prices of the same instruments is clear. For example, the median plan recovery rate for senior unsecured bonds was 41% of par while the

Characteristics of Companies in Fitch’s Study and Summary Results

	Average	Median
Company Characteristics		
Pre-Bankruptcy Total Debt/Total Assets	0.86	0.74
Emergence Firm Value/Pre-Bankruptcy Total Debt	0.70	0.61
Emergence Firm Value /Pre-Bankruptcy Total Assets	0.53	0.50
Pre-Bankruptcy PPE/Total Assets	0.43	0.43
Emergence Total Debt/Pre-Bankruptcy Total Debt	0.35	0.31
Pre-Bankruptcy Capital Structure		
Pre-Bankruptcy Senior Secured Debt/Total Debt	0.38	0.37
Pre-Bankruptcy Senior Unsecured Debt/Total Debt	0.41	0.48
Pre-Bankruptcy Subordinated Debt/Total Debt	0.21	0.00
Emergence Firm Value Versus Pre-Bankruptcy Debt Mix and Plan Outcomes		
Emergence Firm Value /Senior Secured Debt	3.31	1.43
Senior Secured Loan Recovery from Plan	0.93	1.00
Senior Secured Bond Recovery from Plan	0.67	0.78
(Emergence Firm Value — Senior Secured Debt)/Senior Unsecured	0.75	0.50
Senior Unsecured Loan Recovery from Plan	0.63	0.57
Senior Unsecured Bond Recovery from Plan	0.44	0.41
(Emergence Firm Value — Senior Secured — Senior Unsecured)/Subordinated	< 0	0.09
Subordinated Recovery from Plan	0.27	0.14
Emergence Prices		
Secured Loan Emergence	0.84	0.95
Secured Bond Emergence	0.67	0.78
Unsecured Loan Emergence	0.65	0.61
Unsecured Bond Emergence	0.43	0.43
Subordinated Bond Emergence	0.31	0.11

Source: Fitch, SEC filings, Advantage Data and Markit.

median emergence price for the same bonds was 43% of par. Emergence prices are excellent proxies of bankruptcy resolution.

Cyclicality, Always Visible in Debt-Specific Recovery Rates, Extends to Firm Value

Examining the emergence firm value results over the seven years covered by the study revealed the influence of cyclicality (see the Firm-Level Recoveries by Default Year table on the following page). Companies that defaulted in 2002, for example, emerged with a median firm value to pre-bankruptcy asset value of 44%, while companies that defaulted in 2005 emerged with 68% of their pre-bankruptcy asset value intact.

The cyclicality in firm value outcomes mirrored broader trends in the high yield market. As shown in the Business Cycle chart on page 8, the valuation of non-defaulted ‘BB’ and ‘B’ rated companies fluctuated similarly over the period studied. The chart also shows how valuations tumbled in 2008 as defaults began to climb, a consequence of the recession and tight credit.

Market's View of Sector Has Strong Influence on Emergence Firm Value

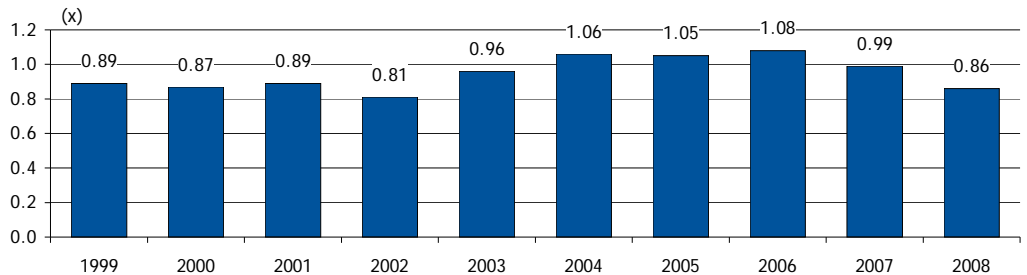
Not surprisingly, emergence firm value outcomes also differed by industry. Examining sectors with multiple bankruptcies revealed some wide gaps. For example, the median ratio of firm value to pre-bankruptcy asset value for health care companies was a strong 0.84, while the median ratio of firm

Firm-Level Recoveries by Default Year

	Median Firm Value/Pre-Bankruptcy Asset Value (x)	No. of Observations
2000	0.66	16
2001	0.48	34
2002	0.44	29
2003	0.53	17
2004	0.44	11
2005	0.68	7
2006	0.86	2

Source: Fitch, SEC filings.

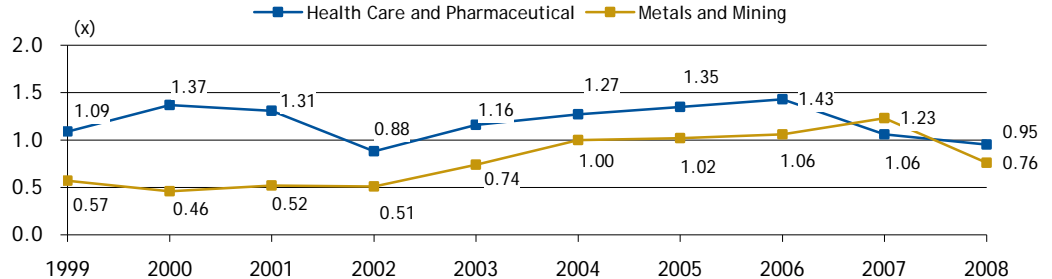
Median Enterprise Value/Asset Value Across the Business Cycle: 'BB' and 'B' Companies



Source: Fitch, Bloomberg and SEC filings.

value to pre-bankruptcy asset value for metals and mining companies was a paltry 0.34 (see the Median Emergence Firm Value/Pre-Bankruptcy Asset Value table on page 9). Fitch compared firm value outcomes by industry to market multiples and found a strong link between the two. As shown in the Cyclical Industries chart below, for example, the emergence firm value outcomes recorded for metals and mining — a highly cyclical sector also plagued by secular challenges (in this case, foreign competition) — were not far off from the low enterprise value multiples associated with the sector in the 1999–2002 downturn. In contrast, market valuations for speculative grade health care companies were more robust even at the low point of the last cycle and generally more stable from trough to peak. Not surprisingly, the bankruptcy outcomes of companies in this sector were among the highest in Fitch's study.

Median Enterprise Value/Asset Value: 'BB' and 'B' Companies — Cyclical Industries Have More Pronounced Swings in Valuations and Hence Recoveries



Source: Fitch, Bloomberg and SEC filings.

**Median Emergence Firm Value/
Pre-Bankruptcy Asset Value, Fitch Study**

	No. of Companies	Median EV/ Assets
Consumer Products	1	1.27
Paper and Containers	3	1.20
Health Care and Pharmaceutical	7	0.84
Banking and Finance	2	0.80
Computers and Electronics	2	0.75
Broadcasting and Media	2	0.67
Utilities	4	0.64
Building and Materials	6	0.63
Industrial/Manufacturing	8	0.63
Food, Beverage and Tobacco	6	0.61
Chemical	4	0.55
Automotive	3	0.50
Gaming, Lodging and Restaurants	1	0.49
Leisure and Entertainment	3	0.49
Cable	1	0.46
Transportation	6	0.46
Energy	3	0.43
Textiles and Furniture	8	0.42
Telecommunication	30	0.38
Metals and Mining	10	0.34
Supermarkets and Drug Stores	1	0.34
Retail	1	0.15

Source: Fitch, SEC filings.

**Median Market Enterprise Value/Asset
Value Multiples 2008: 'BB' and 'B'
Companies**

	Enterprise Value/ Asset Value
Telecommunication	1.38
Energy	1.15
Aerospace and Defense	1.09
Cable	0.99
Gaming, Lodging and Restaurants	0.98
Health Care and Pharmaceutical	0.95
Chemical	0.93
Industrial/Manufacturing	0.92
Food, Beverage and Tobacco	0.85
Supermarkets and Drug Stores	0.82
Computers and Electronics	0.81
Utilities	0.79
Leisure and Entertainment	0.78
Consumer Products	0.78
Transportation	0.77
Metals and Mining	0.76
Paper and Containers	0.70
Retail	0.63
Textiles and Furniture	0.63
Building and Materials	0.59
Broadcasting and Media	0.55
Automotive	0.47

Source: Fitch, Bloomberg and SEC filings.

A closer look at the emergence firm value results by industry also shows that the worst-hit areas consisted of cyclical sectors or sectors hit by multiple bankruptcies due to systemic problems (in addition to metals and mining and textiles, there was the unforgettable telecommunications meltdown of 2001–2002).

Fitch's study confirms the very valuable insight into potential recoveries offered by market trading multiples. Examining market valuations is a core part of Fitch's assignment of recovery ratings, an effort launched in 2005 to capture more effectively the variability in recovery rates in credit ratings. At the end of 2008, a number of troubled sectors that have subsequently produced high defaults this year and low recoveries were, in fact, trading at low enterprise value ratios. None stands out more than the automotive sector, at the very bottom of the list (see the Median Market Enterprise Value table above).

Beyond the Business Cycle

Firm Value Can Remain Intact When Leverage Is the Main Problem

Examining other drivers of firm value beyond the business cycle and industry trends, Fitch observed that companies with above-average ratios of pre-bankruptcy debt to assets going into bankruptcy, surprisingly, experienced some of the best firm value outcomes, while companies going into bankruptcy with lower leverage ratios often produced very low firm value outcomes. While seemingly counterintuitive, this finding suggests that companies that filed mostly as a result of excessive leverage but sound business profiles were able to emerge from bankruptcy with the majority of their asset value intact but with a more conservative mix of debt to equity. The nature of the default/bankruptcy is a critical consideration.

Cash Flow Generation More Important than Hard Assets

In Fitch's study, there was no discernable difference in the firm value results of companies with low or high tangible assets (as measured by the pre-bankruptcy ratio of plant, property and equipment to asset value). A number of bankrupt companies in hard asset-rich sectors such as telecommunication and metals and mining, produced grim firm-

wide recoveries. Tangible assets alone did not insulate creditors from losses when the hard assets were in industries with systemic problems/excess capacity. In the end, the ability of the hard assets to produce cash flow remained the best measure of value.

Small and Less Complex Often Preserves Value

When examining the sensitivity of firm value outcomes to company size (as measured by pre-bankruptcy asset value), interestingly, smaller companies in the sample produced higher median firm values than larger companies. The median firm value to pre-bankruptcy asset value for companies with \$500 million or less in assets was 0.71, versus 0.49 for companies with assets from \$500 million to \$2 billion, and 0.53 for companies with assets above \$2 billion. Fitch excluded telecommunications from this analysis since the sector's collapse and the large size of the firms involved had a disproportionately negative effect on the large company statistics. As illustrated by the numbers above, however, even excluding telecommunications, relatively smaller companies had stronger firm-wide recoveries. One possible explanation for this is that smaller companies likely had less complex capital and operating structures, which helped expedite bankruptcy and thus preserve firm value. In fact, the median time in bankruptcy for the group of companies with assets of \$500 million or less was less than one year, while it was 1.3 years for the largest companies, suggesting that smaller size (with likely fewer and less diverse claims) made the bankruptcy/reorganization process smoother. The pool of relatively smaller companies also had a disproportionately larger share of prepackaged bankruptcies.

On the subject of complexity of capital structure, Fitch also examined firm value outcomes relative to the composition of debt prior to bankruptcy. The most interesting finding from this exercise was that the absence of senior secured debt from the capital structure appeared to depress firm value. As shown in the Firm-Level Recovery Versus Debt Mix table below, except for the lone observation with all subordinated debt, which did register an average firm value result, in other instances where the debt structure included just bonds, firm values fell below average. Some of this was

Firm-Level Recovery Versus Company Size

	Median Asset Size	Median Firm Value/Pre-Bankruptcy Asset Value	No. of Observations
First Quartile	268,845	0.72	29
Second Quartile	706,893	0.48	29
Third Quartile	1,486,782	0.50	29
Fourth Quartile	4,755,100	0.46	29

Source: Fitch.

certainly associated with a number of defunct telecommunications companies that were often fully financed by the high yield bond market. Nonetheless, additional findings surrounding secured debt — and in particular, senior secured loans (discussed below) — suggest that mechanisms were in place that allowed senior secured lenders to avoid the worst bankruptcy situations.

Firm-Level Recovery Versus Debt Mix

	Median Firm Value/Pre-Bankruptcy Asset Value	No. of Observations
Secured	0.65	7
Secured + Unsecured	0.50	40
Secured + Subordinated	0.54	34
Secured + Unsecured + Subordinated	0.51	16
Unsecured	0.26	14
Subordinated	0.53	1
Unsecured + Subordinated	0.44	4

Source: Fitch.

Similar Results for Prepackaged and Traditional Bankruptcies

Fitch did not observe any meaningful difference in outcomes for prepackaged versus traditional bankruptcies; however, size again played a role. The median emergence firm value to pre-bankruptcy asset value of companies that entered into prepackaged bankruptcies (22 out of 116) was 0.52, compared with 0.49 for the rest of the sample. However, the prepackaged bankruptcies of companies with less than \$500 million in assets, similar to the findings discussed above, produced stronger results (the median for these was 0.80). While prepackaged bankruptcies overall did not produce significantly different results than traditional bankruptcies, they were resolved faster. The median time in bankruptcy was just six months for the prepackaged bankruptcies, compared with 14 months for the traditional bankruptcies. Of note, the gap between traditional and prepackaged bankruptcies would clearly widen if the time value of money were considered.

Prepackaged Versus Traditional Bankruptcy

	Median Duration	Median Firm Value/Pre-Bankruptcy Asset Value	No. of Observations
Prepackaged	6 Months	0.52	22
Traditional	14 Months	0.49	94

Source: Fitch, SEC filings.

A Substantial Debt Cushion Can Boost Recoveries on Senior Debt, Even in Low Firm Value Outcomes

The discussion so far has focused mostly on firm value, but structure also played an important role in the results — in particular, debt cushion. Debt cushion refers to the amount of junior debt available to absorb losses ahead of more senior obligations. For example, the Characteristics table on page 7 shows that senior secured lenders generally enjoyed a sizeable debt cushion. The ratio of senior secured debt to total debt was less than 40% for the average and median company in the study — therefore, senior secured lenders had a debt cushion of roughly 60%.

Interestingly, Fitch observed that companies in the bottom quarter of firm value (consisting of firms emerging with 30% or less of pre-bankruptcy asset value) had the lowest ratio of senior secured debt to total debt pre-bankruptcy. This contributed to the surprisingly strong median recovery rate on secured loans for this group of companies — 88% of par. For these companies, firm value at emergence covered 34% of pre-bankruptcy debt, but senior secured loans made up a small portion of that total debt (a median of 14%, as shown in the table at the top of page 12) and therefore still experienced strong recoveries. In fact, in the 2000–2006 period covered by the study, companies with the weakest emergence firm values entered bankruptcy with relatively little bank debt. A possible explanation for this may be that bank lenders, through the mechanism of covenants, had early warning of the weakest companies' troubles and reduced their exposure prior to the bankruptcy filing. This finding has important implications for the current downturn.

From 2005 through 2007, Fitch research showed that the boom in leveraged loan issuance was accompanied by a visible and steady deterioration in bank loan covenant packages. In fact, not only did loans become a larger portion of the capital structure, but simultaneously the traditional protections afforded by loans, such as financial covenants, were greatly diminished. Fitch believes that the combination of shrinking debt cushions and covenants has and will continue to depress loan recovery rates in this downturn.

In Last Default Surge, Weak Companies Carried Relatively Little Bank Debt Going Into Bankruptcy Which Helped Preserve Loan Recoveries

	Median Firm Value/ Pre-Bankruptcy Asset Value	Median Firm Value/ Pre-Bankruptcy Total Debt	Pre-Bankruptcy Senior Secured Loans/ Total Debt	Secured Loan Emergence
Median — All	0.50	0.61	0.30	0.95
Median — 1st Quartile	0.17	0.34	0.14	0.88
Median — 2nd Quartile	0.43	0.61	0.35	0.85
Median — 3rd Quartile	0.56	0.65	0.32	0.84
Median — 4th Quartile	0.89	0.86	0.36	0.99

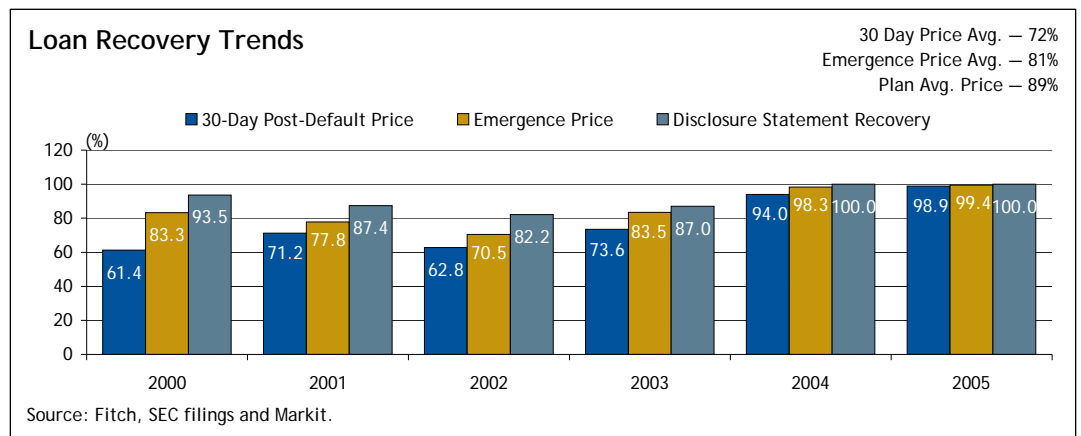
Source: Fitch, SEC filings and Markit.

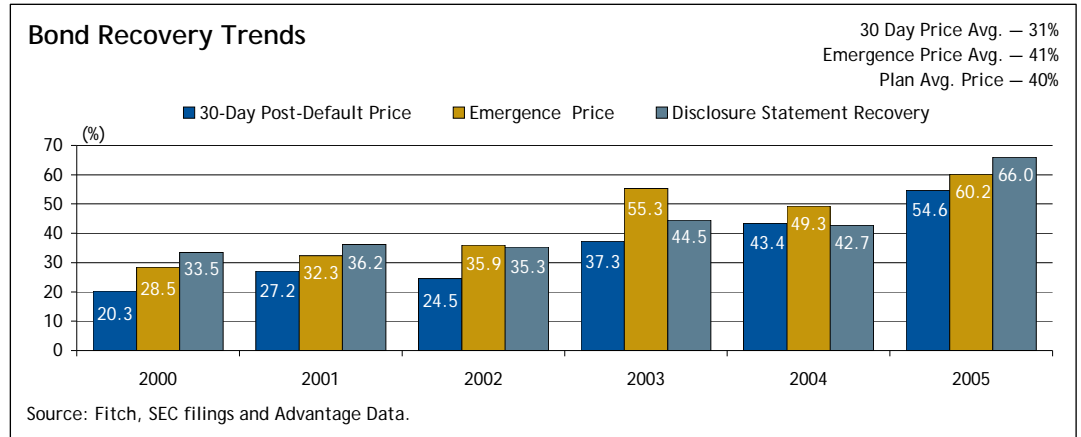
The Price Factor — Default to Emergence

Having discussed some of the complex macro drivers of firm value and the secondary but important role of structure, the charts below and on page 13 offer a summary view of the instrument-specific recovery rates of the loans and bonds in Fitch’s study. The price of the defaulted instruments is shown at the 30-day post-default mark, at emergence from bankruptcy, and as derived from actual bankruptcy documents.

Across loans and bonds, the recovery trend data shows that the 30-day price is a good proxy of emergence prices (since there is a timing gap of roughly a year between the two, accounting for the time value of money would bring the two measures even closer). More importantly, the data show that emergence prices are excellent proxies of actual bankruptcy outcomes. The liquidity of the defaulted instruments — always an important consideration in the pricing of distressed assets — and differing opinions on the going concern value of the bankrupt companies are two factors that likely contribute to the variability in the two. In fact, a closer look at the bond results, whether across medians or averages, shows that bond emergence prices tend to top the bond recovery rates implied from the bankruptcy process in improving or strong economic environments, while in more dismal periods they tend to fall below the formal bankruptcy results.

Similar to firm value, the debt-specific recovery rates show cyclicalty, with low recovery rates affecting 2000-2002 defaults, a return to more average recovery results in 2003 and robust recoveries accompanying strong economic conditions beginning in 2005. As shown, senior secured loans experienced exceptional recovery rates at emergence from bankruptcy. Again, however, companies in Fitch’s study that had the weakest firm values carried relatively little bank debt going into bankruptcy, which is why even in those cases the senior secured lenders enjoyed strong recoveries.





Below is a view of the recovery trend data cut by industry. For the most part, and without giving any consideration to the time value of money, emergence prices and bankruptcy resolution results are higher than 30-day prices. In some cases they are substantially higher — clearly the reason for such an active and motivated distressed debt community. However, recovery rates do not always move higher from default to emergence. In the period examined by Fitch’s study, for example, bond recovery rates from default to emergence fell in retail and cable.

While this study has focused on the many complex drivers of recovery rates using the last surge in defaults as a frame of reference, many of the patterns noted above have reappeared in this downturn with the most significant being the troubling inverse relationship between default and recovery rates. The weighted average 30-day post-default recovery rate on bond defaults through May was in fact just 21.8% of par, a strong departure from the 66.4% of par recorded at the 2007 peak and essentially in line with grim 2001–2002 results. The tables on page 14 offer a view of the 21.8% tally

Average Recovery Outcomes — Default to Emergence

(%)

Industry	Bonds			Loans		
	30 Day Post Default Price	Emergence Price	Disclosure Statement Recovery	30 Day Post Default Price	Emergence Price	Disclosure Statement Recovery
Automotive	25	26	48	82	83	100
Banking and Finance	63	75	94	84	97	100
Broadcasting and Media	33	19	20	84	85	100
Building and Materials	32	60	48	66	131	121
Cable	53	12	13	NA	NA	NA
Chemical	45	52	48	100	100	100
Computers and Electronics	NA	NA	NA	73	66	100
Consumer Products	14	1	6	82	85	100
Energy	57	76	67	77	85	100
Food, Beverage and Tobacco	35	50	42	86	100	100
Gaming, Lodging and Restaurants	19	52	65	NA	NA	NA
Health Care and Pharmaceutical	34	53	47	70	89	96
Industrial/Manufacturing	24	23	27	75	77	93
Insurance	10	57	41	65	100	100
Leisure and Entertainment	19	40	39	80	94	100
Metals and Mining	29	29	20	90	98	100
Paper and Containers	52	75	74	NA	NA	NA
Retail	47	17	23	67	39	40
Supermarkets and Drug Stores	56	75	96	99	100	100
Telecommunication	20	24	28	61	75	82
Textiles and Furniture	25	22	28	88	62	71
Transportation	18	24	20	54	52	77
Utilities	58	94	88	64	92	88
All Sectors	31	41	40	72	81	89

Source: Fitch, SEC filings, Advantage Data and Markit.

Fitch U.S. High Yield Default Index: 30-Day Post-Default Bond Recovery Rates (May 2009 YTD^a)

Industry	Price at 12/31/08 (%)	30 Day Post Default Recovery Rate (%)	No. of Issues
Paper and Containers	19.0	16.6	27
Broadcasting and Media	18.5	11.1	23
Cable	34.8	43.1	23
Gaming, Lodging and Restaurants	16.0	18.1	18
Automotive	17.4	11.8	17
Computers and Electronics	39.9	16.8	15
Telecommunication	27.4	20.6	11
Chemical	36.3	24.2	10
Real Estate	34.7	60.8	5
Energy	25.6	28.7	4
Other	13.4	4.7	4
Building and Materials	38.2	17.3	3
Textiles and Furniture	21.0	14.7	3
Consumer Products	21.0	20.8	2
Food, Beverage and Tobacco	7.3	6.0	2
Industrial/Manufacturing	23.3	21.8	2
Utilities	24.6	17.6	2
Banking and Finance	20.8	0.5	1
Leisure and Entertainment	31.6	0.6	1
Transportation	29.6	29.6	1
All	25.0	21.8	174

^aIncludes GM. Recovery rates weighted by par amount.
Source: Fitch, Advantage Data.

Fitch U.S. High Yield Default Index: 30-Day Post-Default Bond Recovery Rates by Seniority (May 2009 YTD)

	Weighted Avg. Recovery Rate (%)	# of Issues
Senior Secured	33.1	27
Senior Unsecured	20.6	115
Senior Subordinated	12.9	32
Total Defaulted Issues	21.8	174

Source: Fitch, Advantage Data.

by industry and seniority. Interestingly, market pricing fell so precipitously in the last turbulent quarter of 2008 that on a mark-to-market basis defaults in the early part of 2009 have resulted in limited incremental losses. Defaulted bonds through May were trading at just 25% of par at the beginning of the year.

A full view of Fitch's recovery series from 2000–2008 is available in the Appendix beginning on page 16.

A Note on Distressed Debt Exchanges

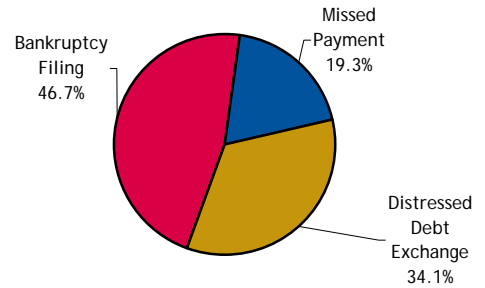
This study has focused on issuers whose troubles ultimately led to formal bankruptcy. In the past year, many companies have engaged in distressed debt exchanges, essentially a far milder, out-of-court form of restructuring. These exchanges have already affected a record \$45 billion in bonds, or 34.1% of all defaults recorded in 2008 and in the first half of 2009. The exchanges are motivated by many factors, including the desire to avoid the often significant legal, administrative and intangible costs of bankruptcy, and nervous or opportunistic investors more willing than in the past to accept such offers in a highly uncertain environment. Companies are also simply having difficulty securing debtor-in-possession (DIP) financing. DIP loans typically finance working capital and

enjoy priority over existing lenders. Roughly two thirds of the companies in Fitch's study had DIP loans.

Due to the market forces described above, Fitch believes distressed debt exchanges will continue to be prevalent this year. However, it is important to note that while they result in some reduction in debt, they are not comparable to a formal bankruptcy filing, which as shown by this study often results in a dramatic reduction in total debt and a reengineering of the entire business model. In addition, if the current recession is prolonged, even companies that enjoyed some debt relief as a result of distressed debt exchanges may be vulnerable again to default or bankruptcy. This past

year, several companies have completed back-to-back distressed exchanges and some have followed a distressed exchange with bankruptcy.

Type of Default (Percentage of Par)
(2008–2009 June YTD)



Source: Fitch U.S. High Yield Default Index.

Conclusion

Fitch's study offers a long-term and multidimensional view of corporate recovery rates. Understanding the fundamental drivers of recovery outcomes is a critical part of measuring and managing credit risk, especially during cyclical downturns. Fitch introduced speculative grade recovery ratings in 2005 precisely to address this important area of risk, offering market participants an instrument-specific view of recovery expectations for companies rated 'B+' or lower, those most at risk of default.

Appendix

Fitch U.S. High Yield Default Index Post-Default Bond Recovery Rates by Seniority^a

	Weighted Avg. Recovery Rate (%)	Number of Issues
2000		
Senior Secured	50.5	19
Senior Unsecured	18.4	74
Senior Subordinated	27.1	64
Total Defaulted Issues	24.9	157
2001		
Senior Secured	60.3	34
Senior Unsecured	27.8	234
Senior Subordinated	16.7	71
Total Defaulted Issues	29.8	339
2002		
Senior Secured	44.9	22
Senior Unsecured	21.2	267
Senior Subordinated	24.3	30
Total Defaulted Issues	22.5	319
2003		
Senior Secured	69.8	13
Senior Unsecured	47.0	104
Senior Subordinated	29.4	32
Total Defaulted Issues	44.4	149
2004		
Senior Secured	89.2	8
Senior Unsecured	52.0	32
Senior Subordinated	55.1	9
Total Defaulted Issues	61.5	49
2005		
Senior Secured	89.1	27
Senior Unsecured	41.2	42
Senior Subordinated	12.4	6
Total Defaulted Issues	57.6	75
2006		
Senior Secured	93.4	5
Senior Unsecured	67.5	18
Senior Subordinated	35.7	9
Total Defaulted Issues	64.3	32
2007		
Senior Secured	81.8	5
Senior Unsecured	63.4	10
Senior Subordinated	56.7	8
Total Defaulted Issues	66.4	23
2008		
Senior Secured	32.3	27
Senior Unsecured	54.4	70
Senior Subordinated	23.8	25
Total Defaulted Issues	45.8	122

^aBased on market prices 30 days following default.
Source: Fitch, Advantage Data.

Fitch U.S. High Yield Default Index: Post-Default Industry Recovery Rates 2000–2008^a

(%)

	2000		2001		2002		2003		2004		2005		2006		2007		2008	
	DR	RR	DR	RR	DR	RR	DR	RR	DR	RR	DR	RR	DR	RR	DR	RR	DR	RR
Automotive	4.4	11.9	28.3	12.0	4.2	16.9			0.8	81.6	10.5	53.2	6.5	59.2	2.1	73.1	2.2	9.1
Banking & Finance	3.2	15.1	21.8	77.5	5.1	27.0	1.8	25.6	0.2		1.1	73.9	0.3	94.6			29.2	57.2
Broadcasting & Media	3.0	33.0	4.1	22.3	7.9	33.9	1.6	31.0	2.9	46.7	0.5		1.2	96.9	1.6	67.4	9.9	33.3
Building & Materials	16.2	27.6	4.3	33.3	3.7	20.9	0.6	35.6					0.6	26.0			8.6	25.6
Cable			1.2	53.4	34.4	41.1	1.2	30.8										
Chemicals	2.0	12.8	10.5	29.4	4.7	19.0	4.7	41.2	1.5	52.4							2.4	9.6
Computers & Electronics	4.8	13.5	3.1	13.5	7.6	14.5	0.4	62.1	1.3	69.4			0.0					
Consumer Products	9.6	16.4	12.5	24.7	3.2	13.3			1.8	43.6			1.3	39.6	1.8	15.3		
Energy	1.1	53.9	0.3	8.0	2.4	49.0	2.8	59.2	0.6	71.7							1.9	28.8
Food, Beverage & Tobacco	15.6	22.3	12.4	30.9	5.3	29.8	9.3	17.3	1.4	20.1			0.8	12.6	1.6	75.8	6.0	24.9
Gaming, Lodging & Restaurants	2.4	28.5	3.2	15.8	2.1	76.7	1.7	79.2	5.8	86.9			0.4	101.4			14.5	28.5
Health Care & Pharmaceutical	6.8	17.0	3.4	18.6			12.3	55.3	0.6	63.0	0.6	60.0			1.3	70.0	0.3	0.1
Industrial/Manufacturing	2.7	19.7	8.4	16.2	5.2	31.9	5.5	26.9	1.8	74.2	6.9	69.9	0.7	66.9			2.4	7.8
Insurance	15.0	27.0			35.2	9.4	15.6	10.5					2.8	44.6				
Leisure & Entertainment	14.4	17.1	17.8	11.0	1.2	59.8									5.4	98.7	16.9	39.8
Metals & Mining	6.7	13.1	16.4	11.6	20.2	35.9	9.6	33.5	5.5	44.0	1.3	61.3						
Miscellaneous	5.1	14.5	2.8	22.0	2.2	8.8	0.5	22.6	1.9	68.6	0.1		0.6	116.1			1.4	21.5
Paper & Containers	3.2	29.4	10.9	8.6	8.2	64.4	0.6	39.8	1.1	51.6	0.8	48.4	3.3	55.1	0.9	53.6	6.5	61.1
Real Estate																	1.6	9.3
Retail	3.4	22.4	5.6	7.4	11.8	48.2	2.5	44.7	0.6		0.7				1.6	24.6	3.3	37.1
Supermarkets & Drug Stores	13.8	40.3	3.6	21.9	2.3	48.6	1.1	58.6			3.3	55.6			0.3	65.0		
Telecommunications	5.1	32.8	23.9	11.5	43.5	13.5	11.0	34.0	2.2	53.8					0.1	9.0	1.2	10.9
Textiles & Furniture	9.5	15.0	12.2	11.3	13.2	27.6	14.2	23.5	3.0	33.9	3.6	42.2	1.7	68.6				
Transportation	18.1	32.4	5.7	30.6	13.2	18.5	8.8	39.8	1.4	20.6	24.2	29.3	2.7	70.2				
Utilities			34.2	60.1	14.0	30.0	9.8	72.9	0.2		14.9	71.1						
Total Market	5.1	24.9	12.9	29.8	16.4	22.5	5.0	44.4	1.5	61.5	3.1	57.6	0.8	64.3	0.5	66.4	6.8	45.8

^aBased on market prices 30 days following default.

Source: Fitch, Advantage Data.

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