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SECTOR IN-DEPTH

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TABLE OF CONTENTS

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Corporate Defaults and Recoveries - US

For High-Yield, 2015 Was a Year of Discontent

Similar Trends Likely in 2016

» **Spec-grade gauges flashing red for investors.** Our B3 Negative and Lower List and Liquidity Stress Index are both showing signs of the strain the energy industry bust is putting on the market. The percentage of companies carrying B3 corporate family ratings climbed to 24% of the total for leveraged finance at the end of last year, compared with 14% at the beginning of 2009.

» **Oil and gas slump propels 2015 defaults to highest level since 2009.** Lower oil and natural gas prices substantially cut cash flow for the industry in 2015. Coupled with diminishing access to the credit markets for lower-rated debt issuers, this prompted a flurry of 15 distressed exchanges (DEs) last year. Defaults are disproportionately affecting lower-rated exploration and production (E&P) companies, mainly in the forms of DEs.

» **Distressed exchanges remain in fashion.** DEs accounted for 48% of US non-financial defaults, up from an average of 44% in the heart of the Great Recession default cycle and much higher than the 15% average between 1988 and 2007. While creditors generally realize better returns from a DE than a regular bankruptcy, the potential for a second default after a DE is still high. Of 14 repeat defaults from September 2010 through December 2015, eight were bankruptcies preceded by a DE during the Great Recession default cycle.

» **These DE transactions continued to produce better-than-average creditor recoveries in a sample of 25 default resolutions during 2015.** Holders of senior secured bank debt made out the best as a result of the cushion provided by junior creditors. Out of 32 first-lien senior secured bank loans we looked at, 18 were on balance sheets of companies that consummated DEs but realized no loss because only lower-ranking debt was swapped. The rest were involved in bankruptcies and recovered an average of 86 cents on the dollar.

» **The speculative-grade discontent is here to stay as our indicators are suggesting.** Looking ahead, mounting pressure on liquidity of lower-rated companies, continuous widening of spreads and sustained stress in commodity sectors support our latest forecast of a rising default rate to 4.41% by the end of 2016. For now, spec-grade debt woes are mainly confined to commodity-based sectors, with oil and gas taking the heat. Without forecasting the timing of the next default cycle, we assume the reversion to the mean in terms of duration, default mix and average recovery rates.

Increasing volatility was the hallmark of the 2015 leveraged finance market. Investors' nerves were tested by a Federal Reserve rate hike, slow growth in emerging markets and geopolitical turmoil around the globe. Regulators continued to clamp down on increased risk in the spec-grade market through stricter application of Leveraged Lending Guidelines, and energy woes, rippling through the markets since the second half of 2014, have been an overwhelming driver of liquidity pressure and an increasing number of defaults in the oil patch. Although commodity weakness has not spilled over broadly elsewhere, the overall liquidity backdrop is more worrisome for US spec-grade companies because of higher borrowing costs, which is dragging down the pace of new debt issuance. High-yield spreads have widened, reflecting increasing market volatility and heightened investors' caution.

Spec-grade gauges flashing red for junk debt

Our various proprietary indicators of spec-grade credit stress have been showing strain on the back of energy bust. The Liquidity Stress Index rose as oil prices tumbled to its multi-year lows and the B3 Negative and Lower List ticked up 36% year over year at the end of 2015, due mainly to downgrades in the energy sector. The lower-rated cohort continued its rise at the beginning of 2016, hit another multi-year high of 264 as of February 1, and is now only 27 issuers away from its credit-crisis peak.

As our heat map with sector weightings shows, oil and gas remains the largest constituent of Moody's B3 Negative and Lower List (see Exhibit 1.) Due to continuing energy woes, the oil and gas sector's percentage of the total reached yet another record of 28% as of February 1. That by far exceeds the sector's historical average of 9.2%, and the 4.8% observed in the midst of the credit crisis.

Exhibit 1

Oil and Gas Shoulders Most of the Spec-Grade Credit Strain

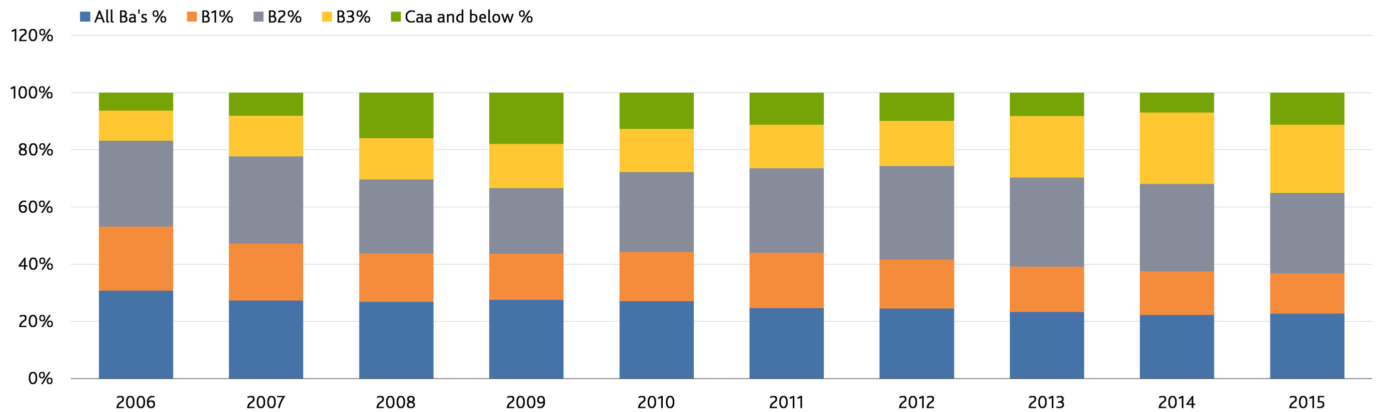
	Current		1 month ago	1 year ago	
Sector	Number of Issuers	2/1/2016	1/1/2016	2/1/2015	monthly delta
OIL & GAS	74	28.0%	25.4%	10.9%	2.6%
SERVICES	35	13.3%	13.7%	12.0%	-0.5%
RETAIL	18	6.8%	6.9%	8.2%	0.0%
MANUFACTURING	14	5.3%	5.6%	7.6%	-0.3%
CONSUMER PRODUCTS	13	4.9%	5.6%	5.4%	-0.7%
TECHNOLOGY	13	4.9%	5.2%	4.3%	-0.3%
MEDIA	12	4.5%	4.8%	6.5%	-0.3%
METALS & MINING	11	4.2%	3.2%	3.8%	0.9%
WHLSL DSTRBTN	11	4.2%	4.4%	3.8%	-0.3%
DEFENSE	9	3.4%	3.6%	3.8%	-0.2%
ENVIRONMENT	6	2.3%	2.4%	2.2%	-0.1%
GAMING: CASINOS	6	2.3%	2.4%	6.0%	-0.1%
TELECOMMUNICATIONS	6	2.3%	2.4%	3.3%	-0.1%
AIRCRAFT & AEROSPACE	5	1.9%	2.0%	1.6%	-0.1%
CHEMICALS	5	1.9%	1.2%	2.2%	0.7%
CONSTR & ENGINEERING SERV	5	1.9%	2.4%	3.3%	-0.5%
ENERGY: OTHER	5	1.9%	1.6%	2.2%	0.3%
RESTAURANTS	4	1.5%	1.6%	4.3%	-0.1%
PACKAGING	3	1.1%	1.2%	1.1%	-0.1%
AUTOMOTIVE	2	0.8%	0.8%	1.6%	0.0%
HEALTHCARE	2	0.8%	0.8%	2.2%	0.0%
PHARMACEUTICALS	2	0.8%	0.8%	1.1%	0.0%
TRANSPORTATION	2	0.8%	0.8%	1.6%	0.0%
NATURAL PRODUCTS PROCESSOR	1	0.4%	0.4%	1.1%	0.0%

"Oil & Gas" includes E&P, oilfield services and midstream/transmission gas companies; "Energy: Other:" includes coal and electricity production companies;
Note: In the "monthly delta" column, darkening red indicates increases, while darkening green indicates decreases.

Source: Moody's Investors Service

The ratings quality for US spec-grade corporate borrowers has deteriorated since the Great Recession. From 2009 through the end of 2015, B3 corporate family ratings (CFRs) climbed from 14% to 24% of the spec-grade universe, while overall B-rated credits have increased from 57% to 66%. As high-yield investors became more risk averse, and pricing of leveraged loans and high-yield debt increased precipitously, fewer issuers started out with B3 CFRs. However, our rating distribution is still dominated by B2s and B3s, reflecting heightened activity over the past several years and investors' appetite for high yield in the low interest rate environment (see Exhibit 2).

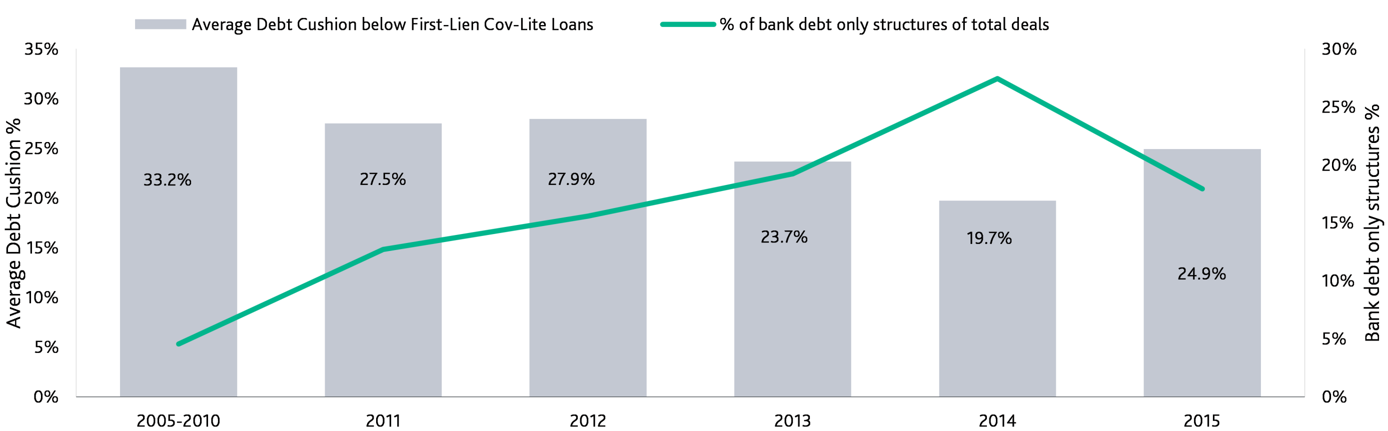
Exhibit 2
B2, B3 Dominate Total Speculative-Grade Population
Share of Spec-Grade CFRs by Rating Category



Source: Moody's Investors Service

Consistent with the decline in new transactions due to invetsor's rattled nerves and widening spreads, we also saw reduced volume in covenant-lite loan issuance in 2015 and a smaller amount of cov-lite first-lien bank-debt-only deals. However, the credit quality of cov-lite 2.0 deals (as we defined post-crisis cov-lite deals in our report "Time is Catching Up with Covenant-Lite" June 2014) remains worse than pre-crisis cov-lite 1.0 deals, although there has been some improvement in debt cushions below first-lien term loans issued in 2015, that is now slightly above the 2013 average (see Exhibit 3).

Exhibit 3
Debt Cushion for First-Lien Cov-Lite Loans Rose in 2015



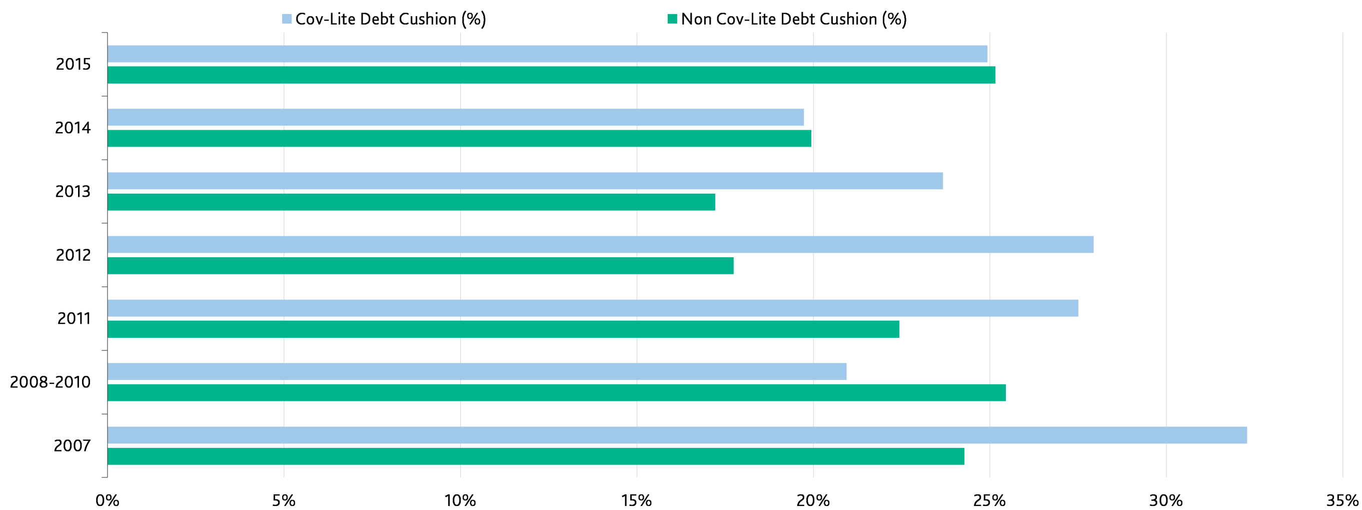
Source: Moody's Investors Service

With cov-lite deals now comprising more than two thirds of all loans issued, according to Thomson Reuters LPC, we reviewed whether credit quality differed between non-covenant-lite loan deals and their cov-lite counterparts.

We looked at 450 non-cov-lite loans – consisting of nine subsets of 50 randomly sampled loans issued between 2007 and 2015 to estimate an average percentage of debt cushion below these loans – compared against previously estimated average debt cushions below cov-lite loans. In the most recent loan issuances, the layer of debt subordinated to both senior secured cov-lite and non cov-lite first-lien loans was quite similar, with 2015 non-cov-lite loans having on average a little better loss-absorption capacity than cov-lite conterparts of the same vintage (see Exhibit 4). This lack of difference would technically translate to similar recovery rates in the case of a default.

Exhibit 4

Cov-Lite or Cov-Heavy Had Little Bearing on Loan Debt Cushions in 2015



Source: Moody's Investors Service

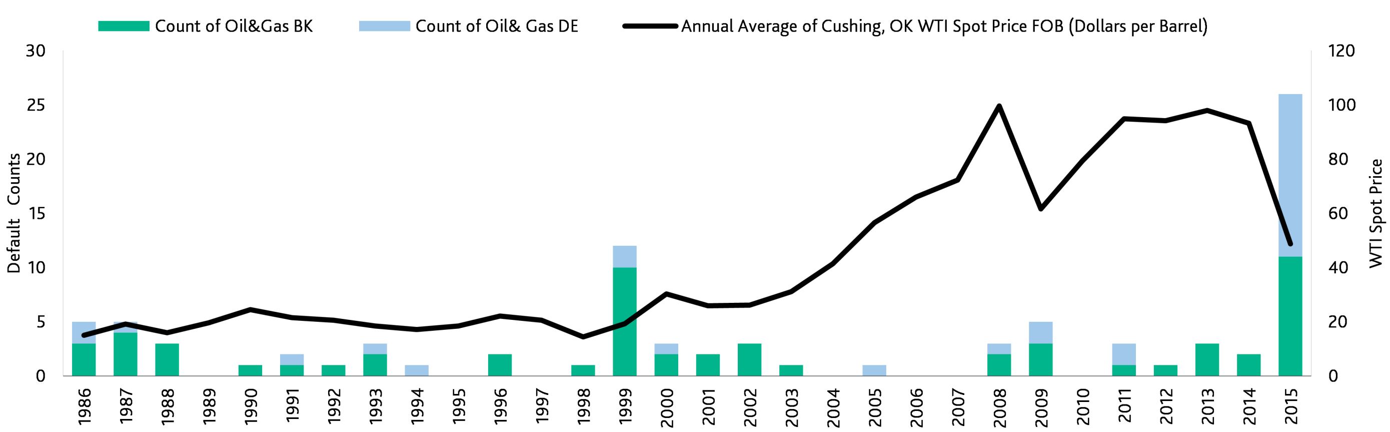
Oil and gas distress not running out of gas

Lower oil and natural gas prices have directly affected cash flows and credit profiles for lower-rated E&P companies, while indirectly affecting other energy companies such as drillers and oilfield service providers.

After oil prices plummeted from mid-2014 levels, high-yield oil and gas issuers (E&Ps in particular), looking to shore up their weak balance sheets, piled on distressed exchanges. In the past, even during oil price bust cycles, these debt-restructuring transactions were hardly used by these companies; the chart below puts this phenomenon into perspective (see Exhibit 5).

Exhibit 5

Oil and Gas Firms Piled onto the DE Bandwagon in 2015



Source: Moody's Investors Service

Stressed companies increasingly have only limited access to capital markets at reasonable yields, and distressed exchanges have helped some issuers reduce debt burdens they cannot refinance. Investors who purchased debt already trading at a discount have more motivation to participate in DEs, while investors who bought at face value may view such exchanges as a chance to improve their recovery prospects by trading up in payment priority.

As a result, in 2015 we recorded a gusher of 15 distressed debt exchanges among US E&P companies. For comparison, in 2013-14 there were none in this sector.

Balance sheets of spec-grade E&P companies tend to be comprised of secured bank facilities senior to unsecured debt. Sixty percent of the defaults in the US oil and gas sector this year were distressed exchanges, where unsecured debt below a reserve-based lending facility (RBL) was affected. As we said previously, such secured bank facilities generally have strong recoveries in default. The outperformance of E&Ps' secured bank debt stresses the importance of creditors' relative position in the liability structure at default, with the secured bank debt having first claim on the company's assets, while the debt cushion provided by junior secured debt and unsecured bonds bears the brunt of the losses. As asset values of E&P companies shrink with commodity prices, unsecured debt holders could also view distressed exchanges as a means to improve their recovery prospects prior to a potential default.

The ultimate instrument recovery rates of 10 DEs in the oil and gas sector during 2015 demonstrates that unsecured debt was restructured and in most cases replaced for more senior (second-/third-lien) debt instruments, with the hope for creditors to improve recovery prospects, should these companies end up in bankruptcy. As Exhibit 6 shows, 25 senior unsecured bonds on average realized a 44% recovery after being swapped for a more secured debt in 2015, substantially lower than a historical average recovery rate of six unsecured bonds that were subject to DEs prior to 2015. Additionally, the hope for improved recovery prospects after consummating this debt swap might not materialize, since second-lien debt tranches' ultimate recoveries historically were not significantly better than those of unsecured counterparts similarly positioned in the liability structure at default. In fact, better recovery expectations in case of bankruptcies are predicated on meaningful loss absorption below exchanged secured debt, so it remains to be seen if the 2015 oil and gas DEs ultimately will help creditors realize lower loss given default (LGD), should a subsequent default occur.

Exhibit 6

Average Instrument Recovery Rates of DEs in the Oil and Gas Sector

Debt Type	2015 Oil& Gas DEs		DEs prior to 2015	
	Part of DE	Sample Size	Part of DE*	Sample Size
First-Lien Bank Debt	N/A	0	69%	8
Senior Secured Bonds	N/A	0	68%	4
Senior Unsecured Bonds	44%	25	67%	6
Subordinated Bonds	N/A	0	53%	9

*Debt instruments that defaulted prior to 2015 were part of 12 oil and gas DEs between 1989-2012; Eight defaulted first-lien loans were part of three DEs between 1989-2003, and six senior unsecured bonds were part of five DEs between 1999-2012.

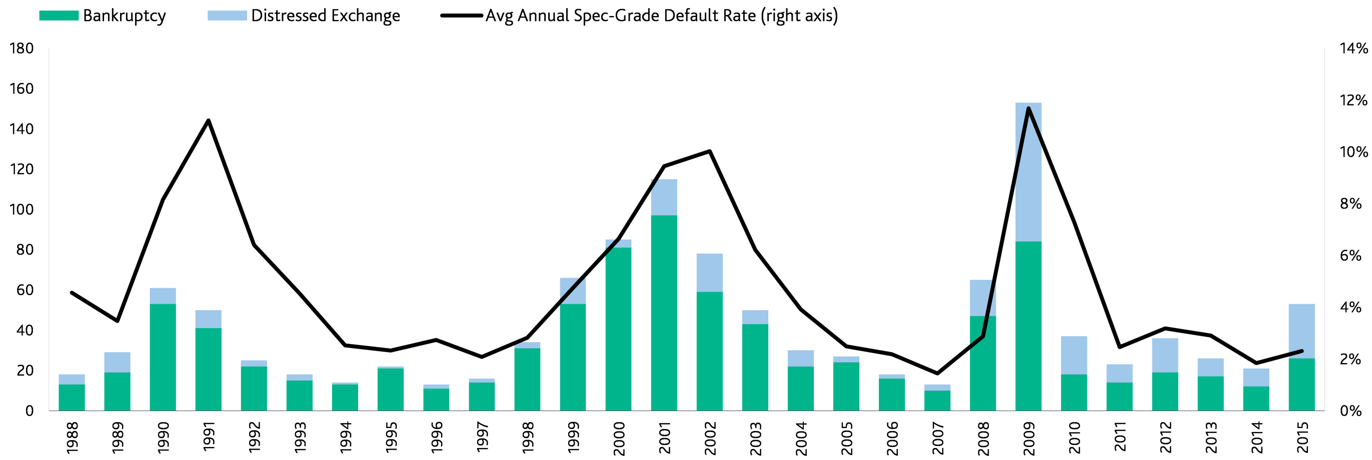
Source: Moody's Ultimate Recovery Database

Overall, distressed exchanges dominate

Last year's distribution of defaults is skewed towards distressed exchanges, the phenomenon that emerged during Great Recession default cycle and continues unabated, as we noted in November (Distressed Exchanges Remain Frequent Thanks to Oil & Gas, PE Firms.) In 2015, DEs accounted for 48% of total US non-financial defaults that we tracked, and for 44% of defaults in 2009-10, the heart of the recession default cycle (see Exhibit 7). Their use was far more limited in the past, accounting for, on average, 15% of defaults between 1988 and 2007. Generally, the goal of a DE is to buy time to avoid or delay bankruptcy, until a company's operating conditions, or the industry or macro environment, improve enough to make one unnecessary. In the best case, they can help over-leveraged firms reduce debt enough to stay solvent and avoid bankruptcy. But, they can also preserve value simply by pushing off a bankruptcy from the depths of a default cycle to a more benign environment.

Exhibit 7

The Use of Distressed Exchanges Climbed in 2015



The left axis indicates number of defaults, the right axis is the US spec-grade default rate.
Source: Moody's Investors Service

If a company's initial swap does not address the company's issues and it remains under credit and/or liquidity stress, another distressed exchange or an eventual bankruptcy filing may follow. Historically, the percentage of companies that executed a DE and then subsequently filed for bankruptcy is approximately 28%. Previously, we found DEs consummated during Great Recession Default Cycle raised the specter or re-defaults post-crisis.

For instance, out of 14 repeat defaults between September 2010 and through the end of 2015, 57% (or eight) were bankruptcies preceded by a distressed exchange during credit crisis default cycle. Perhaps this will give us insights into possible default and recovery behavior in the next default cycle. For now, we continue to monitor these companies that used the abundant liquidity in the market to delay additional defaults or even bankruptcy via DEs.

From the recovery standpoint, historically, companies that completed DEs recovered more at the firm-level than those that filed for bankruptcy. This stems from the fact that, on average, every tranche of debt does better in a distressed exchange than in a bankruptcy, as can be seen in our analysis below. Typically, the first-lien secured bank debt tranches are rarely affected, and hence are allocated a 100% recovery in Moody's Ultimate Recovery Database (URD), while unsecured and subordinated bonds bear the brunt of the losses when a company consummates a distressed exchange.

Creditors recover better under DE scenario

Unsurprisingly, many of the issues related to distressed exchanges discussed above strongly influenced the results at both the firm and instrument levels. The average firm-wide recovery rate for the 25 default resolutions that we tracked in 2015 was 52.9%; the companies that consummated DEs on average recovered substantially higher than their bankrupted counterparts, i.e., 64% vs 41% (see Exhibit 8). Although DEs and prepacks comprised more than half of the 2015 default resolutions, the overall average of firm-wide ultimate recovery rates was slightly below a long-term historical average of 55.1%, estimated since 1987 in Moody's URD. This could be attributed to lower-than-historical average recovery rates of companies that exited bankruptcies in 2015.

Exhibit 8

Default Types	First-lien bank debt	Subordinated Bank Debt*	Senior Secured Bonds	Senior Unsecured Bonds	Subordinated Bonds	Firm-wide Recovery Rate
Bankruptcy	86%	0%	47%	20%	2%	41%
Sample Size	14	1	8	19	3	12
Distressed Exchange	100%	100%	87%	59%	60%	64%
Sample Size	18	1	9	42	2	13

On the instrument level, however, first-lien senior secured loans did especially well in 2015, recovering substantially more than the historical average of 85.1%. Out of 32 first-lien senior secured bank debt instruments that we reviewed as part of our study of 2015 default resolutions, 18 were part of companies' liability structure that consummated distressed exchanges but realized no loss (or were assigned a 100% recovery by definition), since only debt below was restructured. The remaining 14 were on the balance sheets of bankrupted companies, and on average recovered 86 cents on the dollar. Overall, last year's instrument recovery rates continue to demonstrate a positive correlation with the priority of claim in the capital structure, with senior debt holders realizing higher recovery rates than those with a lower seniority rank (see Exhibit 9).

Exhibit 9
Recoveries by Default and Emergence Year vs. Historical Average

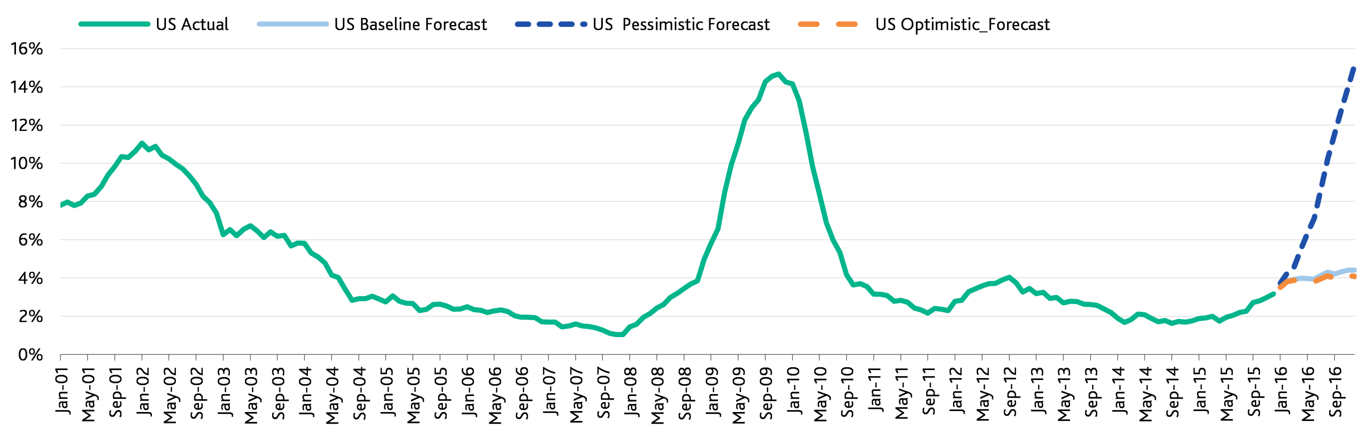
	Emergence Year	Default Year	Moody's Ultimate Recovery Database
Lien Position	**2015**	**2015**	**1987-2015**
All Bank Debt	91.5%	90.3%	80.5%
First-Lien Senior Secured loans	94.1%	93.2%	85.1%
All other Loans	50.0%	50.0%	54.5%
Senior Secured Bonds	67.9%	65.0%	63.1%
Senior Unsecured Bonds	46.6%	47.8%	49.0%
Subordinated Bonds	25.1%	12.4%	28.2%
Family -Level Recovery Rates	52.9%	53.6%	55.1%

Source: Moody's Ultimate Recovery Database

Reversion to the mean in the next default cycle

The surge in spec-grade downgrades, fewer upgrades, the forecasted rise in the default rate, and the widening of high-yield credit spreads relatively increased investors' risk aversions and made it much harder for lower-rated companies to access funds by the end of 2015. In fact, the leveraged finance market still remains subdued at the start of 2016 as debt issuers wait for more accommodating rates. The trailing 12-month US speculative default rate finished 2015 at 3.17%, up 141 basis points from 1.76 % a year ago. The year-end default rate readings was 0.33% higher than originally projected 2.84% in a baseline default rate scenario at the end of 2014. Looking ahead, we expect the US speculative-grade default rate to continue rising through 2016 and climb to 4.41% by the end of 2016 (see Exhibit 10).

Exhibit 10
US Spec-Grade Default Rate Rising, But Still Forecast to Stay Below Long-Term Historical Average



Source: Moody's Investors Service

If our default rate forecast proves correct, the rate will be close to its 4.72% long-term historical yearly average since 1983. In other words, while it may seem the credit cycle is past its prime, the expected default rate is not suggesting imminent doom – unless the commodity-driven distress quickly jumps to other industries, the economy sours and spreads widen further. For now, the liquidity weakness is spreading modestly outside energy-related sectors to select lower-rated companies that face imminent maturities in 2017. Overall, spec-grade liquidity remains in better shape than in the depths of the last recession, and should be supported by US economic growth in 2016, modest maturities for the market overall, and the prevalence of cov-lite loans.

Less-accommodative markets with tighter lending standards, along with continued steep deterioration in energy and commodity prices hurting companies' cash flow and liquidity, have already propelled 2015 defaults to their highest level since 2009 and will continue to exert default rate pressure in 2016. In turn, more defaults often prompt a further tightening of lending criteria. Typically, the downward spiral continues until the weak credits are sufficiently culled and the business outlook improves, according to Moody's economist John Lonski.

Without forecasting an exact timing, we expect the next default cycle to revert to the mean, implying it will last longer, have a lower average default rate and a different mix of default types, something we covered in August (What May Happen in the Next Default Cycle Given Falling Credit Quality). Since there is little indication the Federal Reserve will offer another massive injection of liquidity as it did during the Great Recession default cycle — shortening it to just 21 months — it is logical to assume that the next cycle's duration will likely be closer to ones that ended in 1992 (37 months) or 2004 (57 months). And average default rate of the next cycle will look more like the ones observed prior to Great Recession cycle (see Exhibit 11).

Exhibit 11

Longer Default Cycles Are the Norm, the Great Recession the Anomaly

Default Cycle	December 1989-December 1992	August 1999- April 2004	January 2009-September 2010
Duration	37 months	57 months	21 months
Peak Default Rate	12.36%	11.64%	14.84%
Average Default Rate	8.50%	7.65%	10.37%
Number of Rated Defaults (Us Corporate)	164	428	210

Average Default rate is the average of the monthly default rates; we define a default cycle as the period beginning when the US speculative-grade default rate crosses above the historical average (for the period 1987 - 2015) and ending when it drops back below.
Source: Moody's Investors Service

Moody's Related Research

Sector In-Depth:

- » Moody's B3 Negative and Lower Corporate Ratings List: Oil & Gas Sends List to Six-Year High, Fueling Forecast for More Defaults, January 2016 (1012945)
- » Distressed Exchanges Remain Frequent Thanks to Oil & Gas, PE Firms, November 2015 (1009141)
- » What May Happen in the Next Default Cycle Given Falling Credit Quality, August 2015 (1004664)
- » Time Is Catching Up with Covenant-Lite, June 2014 (171570)
- » US Corporate Defaults and Recoveries: Oil and Gas: The Bad, Ugly, and Good, May 2015 (1004376)
- » US Corporate Default Monitor-Fourth Quarter 2015: Default Rate to Reach Six-Year High in 2016, January 2016 (1014695)

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