BARCLAYS

Credit Research
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#fallenangels

US Credit Focus

Will Angels Drop Like Flies?

As commodity prices continue their downward spiral, fallen angel volumes look poised to reach nearly $155bn over the next 18-24 months absent a sharp rebound in oil, with the potential to increase to more than $200bn if prices deteriorate further. Valuations do not seem to fully reflect downgrade risk in energy; meanwhile, metals & mining fallen angel candidates seem to be more fully pricing in downside scenarios. Such a large index move, combined with mutual fund outflows, could create technical pressure on downgraded issuers and the US High Yield Index overall, and we recommend only selectively increasing exposure to commodity credits that are properly compensating for potential fundamental deterioration. We continue to believe that, absent a US recession, non-commodity downgrades will remain relatively muted and be driven by M&A-related risks and weakness in retail.

With oil and metals prices continuing to push new lows, the outlook for commodity-based credits has deteriorated sharply since the middle of last year. Indeed, despite seeming to stabilize at around $60 in May (and again at $45-50 in September and October), WTI crude oil prices have now moved below $30 for the first time since 2003, and the London Metals Index (LMEX) is at its lowest level since 2008 (Figure 1). This renewed downward momentum has put severe pressure on credit valuations (Figure 2). Since May 1, the US Corporate Index has posted -3.4% of excess returns, while energy returned -14.0% and metals & mining bonds lost 20.3%. More than two-thirds of these losses have occurred in the past few months: since October 30, energy and metals have returned -9.4% and -13.5%, respectively. Given the deterioration in fundamentals since November, we are updating our outlook for fallen angel volumes to reflect these more adverse commodity price conditions.

With oil prices at these levels, the effect on leverage metrics is non-linear. Declines in revenue cannot be met by proportionate declines in the cost base, and the levers that companies can pull (such as dividend cuts and asset sales) become increasingly ineffective relative to cash flow deficits. Whether oil prices remain below $30/bbl for most of the year or rebound slightly, we think the outlook for investment grade status remains highly questionable for a large proportion of energy credits, particularly in independent E&P and oil field services, which have the most direct exposure to underlying commodity price moves.

Unless oil and metals prices rebound sharply and stabilize at these higher levels, we expect roughly $145bn of bonds in the US Corporate Index to be downgraded to high yield over the next 18-24 months, with most downgrades likely occurring only at the end of 2016 or in the first half of 2017. On a sector level, we expect about $55bn from independent E&P to be downgraded to high yield, $15bn from oil field services, $5bn from integrated, $35bn from midstream, $15bn from metals & mining, and, finally, only about $20bn of debt outside of commodities (Figure 3).

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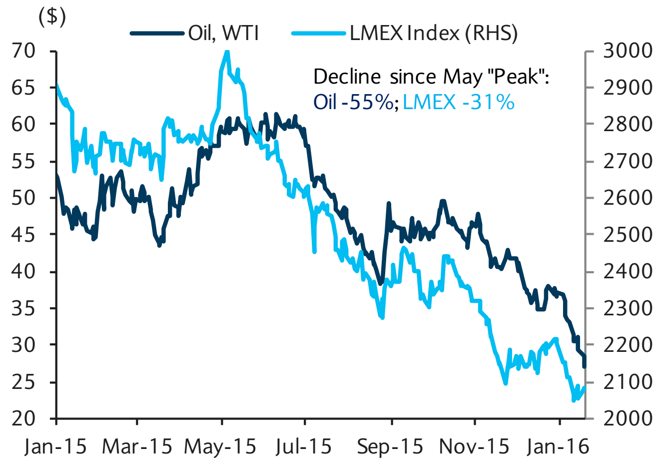
FIGURE 1

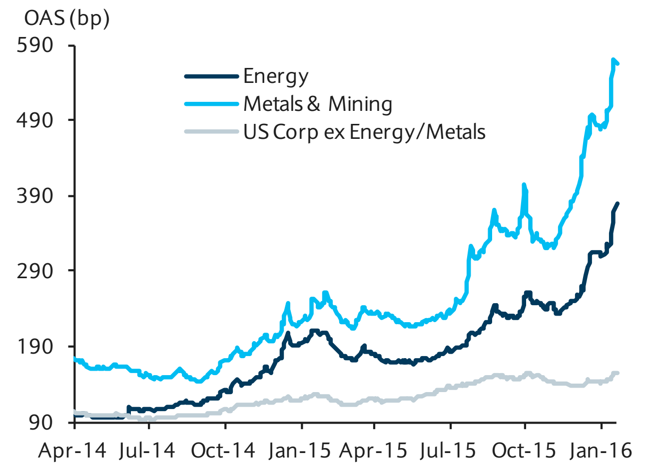
Commodity Prices Continue to Push New Lows…



Source: Bloomberg, Barclays Research

FIGURE 2

…Driving Underperformance for Commodity Credits



Source: Barclays Research

In addition to the investment grade index downgrades, several 144A commodity credits also face high yield downgrade risk. While they are not included in the US Corporate Index, once downgraded, they will be High Yield Index eligible (as long as they are developed market credits). Adjusting for this, our expected total fallen angel volume for the next 18-24 months is $155bn (the $145bn from the Corporate Index plus $10bn of 144A investment grade securities, mostly in the metals & mining sector), which translates to a market value of about $125bn.

Figure 4 shows how this total stacks up relative to other periods. Our estimate of $155bn (albeit over two years) would exceed the downgrade volumes of 2002 and 2005, years in which downgrades were driven by a sharp deterioration in specific sectors (telecoms in 2002 and autos in 2005). That said, they would be significantly smaller relative to the size of the investment grade and high yield indices; $155bn of par would be less than 4% of the US Corporate Index and about 12% of the US High Yield index. Nevertheless, this would still represent a sharp increase in the amount outstanding in the High Yield Index and, combined with the fund outflows the asset class has experienced over the past year, could drive technical selling pressure in high yield.

FIGURE 3

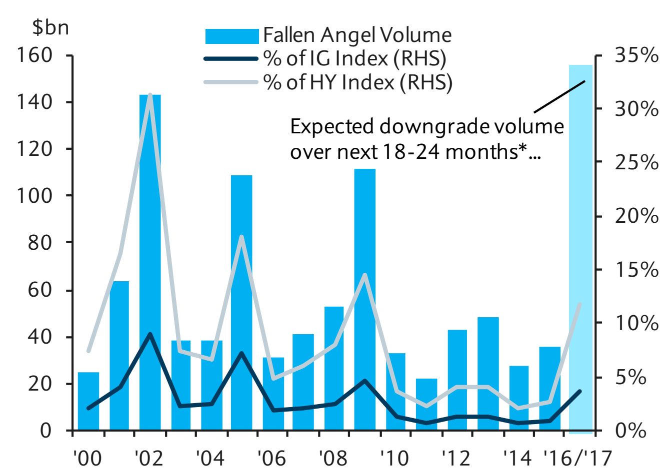
Share of US Corporate Index That Could be Downgraded to High Yield If Commodity Prices Fail to Rebound

Sector	Total Amt Out	Fallen Angel Amt Out	% of Fallen Angels
Independent	$108bn	$55bn	51.1%
Oil Field Serv	$45bn	$15bn	30.9%
Midstream	$165bn	$35bn	21.1%
Integrated	$117bn	$5bn	4.9%
Refiners	$20bn	$0bn	0.0%
Met & Min	$83bn	$15bn	19.7%
Ex Commodity	$3,698bn	$20bn	0.5%
Total	$4,236bn	$145bn	3.5%

Note: Excludes 144A securities, which would add about $10bn total. Downgrade totals are for 2016-17. Source: Barclays Research

FIGURE 4

Potential Fallen Angel Volumes for 2016 and 2017 Should Exceed $170bn If Commodity Prices Fail to Rebound



Note: US High Yield-Index eligible bonds only. * Downgrade estimates are for the next 18-24 months (2016-17). Source: Barclays Research

FIGURE 5

2016 Net Debt/EBITDA under Different Oil Price Scenarios (x)

	Capex = Cash Flow*					Capex = Depreciation**				
WTI ($/bbl)	**20**	**30**	**40**	**50**	**60**	**20**	**30**	**40**	**50**	**60**
APA	16.5	4.8	2.8	1.9	1.5	22.1	6.0	3.2	2.0	1.3
APC	18.3	7.7	4.8	3.5	2.8	22.0	8.9	5.3	3.7	2.8
CLR	9.9	6.3	4.6	3.6	3.0	11.1	6.8	4.8	3.6	2.8
CNQCN	-48.9	9.7	4.3	2.7	2.0	-53.7	10.8	4.5	2.6	1.7
COP	-25.5	16.8	6.1	3.6	2.6	-32.0	18.0	6.3	3.5	2.2
CVECN	-16.1	5.3	2.2	1.4	1.0	-26.3	8.1	2.9	1.5	0.9
DVN	31.1	10.1	5.9	4.1	3.2	31.8	10.4	5.9	3.9	2.9
ECACN	5.2	3.9	3.1	2.6	2.3	6.5	5.0	4.1	3.4	3.0
EOG	18.3	4.6	2.6	1.8	1.3	19.9	5.1	2.6	1.6	1.0
HES	-34.7	7.3	3.2	2.1	1.5	-75.1	10.1	4.2	2.4	1.5
MRO	-8.4	87.1	5.9	3.0	1.9	-10.3	53.2	5.9	2.7	1.5
NBL	6.1	4.6	3.6	3.0	2.5	7.0	5.0	3.8	3.0	2.5
OXY	22.5	3.4	1.8	1.2	0.9	26.4	3.9	1.9	1.2	0.8
PXD	0.6	0.3	0.2	0.2	0.2	3.6	1.9	1.1	0.8	0.7
SWN	6.8	6.4	6.1	5.8	5.6	7.1	6.7	6.3	6.0	5.7
XEC	4.9	2.0	1.2	0.9	0.7	11.2	3.9	2.1	1.3	0.8

Note: Assumes $2.55/mmbtu natural gas in all scenarios, Brent-WTI differential assumed flat. Includes hedges where they exist. * Assumes capex equals cash flow across price decks. ** Assumes capex equals maintenance capital. Source: Company reports, Barclays Research (*Updated E&P Sensitivities*, January 15, 2016)

Below, we discuss each sub-sector in more detail:

- **Independent E&P**: Figure 5 shows the sensitivity analysis of independent E&P financial metrics across different oil price scenarios (Figure 3; see *Energy and Pipelines: Updated E&P Sensitivities*, January 15, 2016). The analysis shows a clear deterioration of financial metrics at $20 and $30 oil. Assuming the average oil price is $30 for 2016, we estimate that for half of the names, leverage will be 6x or worse, a level at which we believe these credits will face downgrade pressure to high yield. Overall, most mid- to low BBB credits are unlikely to remain investment grade absent a sharp rebound in oil; thus, we expect roughly $55bn to be downgraded over the next 18-24 months in our base case. In particular, some of the larger capital structures we see at risk of falling to high yield, absent a rebound/stabilization of oil closer to $40/bbl include Anadarko (APC), Apache (APA), Continental Resources (CLR), Canadian Natural Resources (CNQCN), Devon Energy (DVN), Marathon (MRO), and Noble Energy (NBL), and Hess Corp (HES).

- **Oil field services:** Lower-quality credits in the sector, in particular, will face significant downgrade pressure at these prices. In our base case, we believe Diamond Offshore (DO), Ensco (ESV), Nabors (NBR), Noble Holdings (NE), Rowan (RDC), and SESI (SPN) all have a high likelihood of falling to high yield, which brings us to an estimated $15bn of downgrades. The larger, higher-quality credits in oil field services may also come under pressure and may be downgraded to BBB, but are unlikely to fall to high yield.

- **Midstream companies** have less direct exposure to underlying commodity price moves than oil field services or independent E&P, given their reliance on longer-term contracts. However, assuming that oil prices remain below $40 for most of the year, Mateer believes that certain midstream companies, such as Energy Transfer Partners (ETP), Western Gas Partners (WES), and Enlink (ENLK), have elevated risk of becoming fallen angels. In the base case, we expect roughly $30-35bn of fallen angel volume. This number could increase meaningfully (to upward of $50bn) if the commodity price environment is worse than expected and oil continues to dip or remains sub-$30/bbl for an indefinite period of time. In such a scenario, we would expect midstream revenues to come increasingly under pressure, not only through lower capacity utilization but also as energy defaults pick up and/or contracts are renegotiated. Kinder Morgan alone, for example, has nearly $35bn of debt outstanding in the Corporate Index, and a fall to high yield would nearly double our base case estimate.

- **Metals & mining:** We believe some of the lower-rated credits, such as Barrick Gold (ABXCN) and Anglo American (AALLN), are also at risk of downgrade to high yield under the current metals price environment. With respect to AALLN, weakness in the company's key commodities (ie, diamonds, copper and iron ore) has contributed to the deterioration in the company's earnings. To counteract increases in debt, management is seeking asset sales to reduce net debt, but we estimate that their execution will have a negligible effect on overall leverage and, thus, do little to prevent negative ratings actions. ABXCN has been successful in its efforts to deleverage through asset sales and improved operations, but despite its efforts, debt levels remain high. At current gold prices, ABX would be unlikely to be downgraded, but if gold were to move below $1050/oz, a downgrade to high yield would become much more likely. In our base case, we estimate that about $15bn of debt ($20bn including 144As) will move to high yield by the end of 2017.

- **Non-commodity-related companies:** Robust M&A-related activity should put pressure on ratings of select credits, especially those that choose to increase leverage to fund transactions. Potential for credit quality deterioration abroad and in certain segments of retail should also drive some downgrades to high yield. Some low-BBB credits that we think could potentially be downgraded are Gap (GPS), Motorola (MSI), and Jabil Circuit (JBL). Gap, in particular, looks likely if negative operating trends continue (it recently posted a comp-store sales decline of 5%) and the company continues to use incremental borrowings to support share repurchase activity (GPS put a $400mn term loan in place in mid-October).

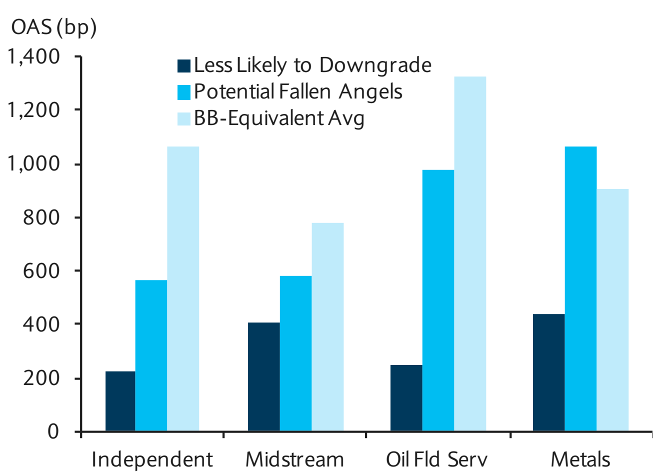
What Are Valuations Implying for Fallen Angel Performance?

Following the significant widening in commodity credits, many bonds are already reflect a high likelihood of a downgrade to high yield. Figures 6 and 7 compare the valuations of credits that we believe are likely to be downgraded with the average spread of BB credits in the same sector.

Independent E&P credits appear to have the most room for downside, trading 400bp tighter (in OAS) and $15 higher than BBs, and the midstream and oil field service sectors are also

FIGURE 6

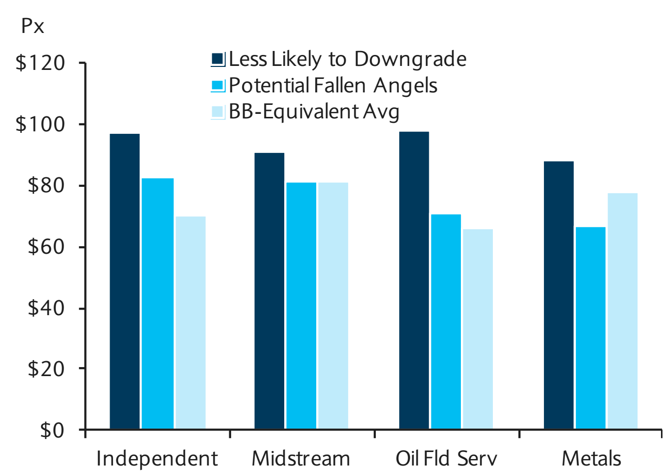
A Potential Downgrade to High Yield Appears to be More Fully Priced in Metals than in Energy in Both OAS Terms…



Note: Compares each sub-sector to the BB-equivalent sector.
Source: Barclays Research

FIGURE 7

…And Dollar Price Terms



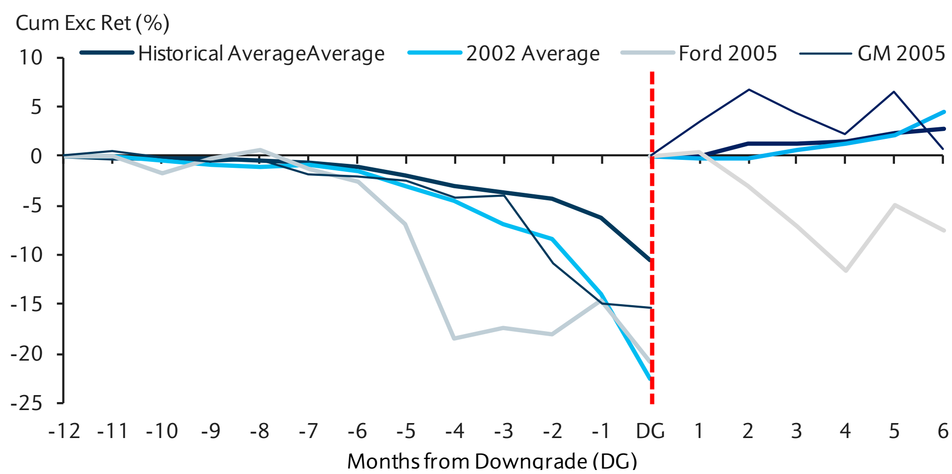
Note: Compares each sub-sector to the BB-equivalent sector.
Source: Barclays Research

significantly tight to BB peers. On the other hand, investment grade metals & mining credits trade wider in spread (and lower in price) than BBs. Thus, absent a sharp rebound in metals prices, we believe any underperformance following a downgrade event would likely be more limited than it would be in energy. Obviously, in a scenario with such significant downgrades, BBs will also likely sell off, worsening the performance of the fallen angels. Accounting for that, and given the current OAS and price valuations relative to BBs, in aggregate we estimate that 10-15pts of further downside is possible for fallen angels in energy from now until the time of downgrade (and briefly after the event).

This downside estimate is in line with previous periods of significant sector-level downgrades. In particular, we examine the performance of fallen angels in 2002 and 2005. Downgraded credits in 2002, and Ford and GM in 2005, underperformed the rest of credit by 20-25% prior to their downgrades, with minimal reversion in the six months after (Figure 8). While the average historical performance following downgrades is less severe, we believe a rash of energy downgrades would more closely mirror the 2002 and 2005 outcomes given the sheer volume of fallen angels. Energy credits have posted excess returns of about -13% since May of last year, suggesting, once again, 10-15% of further downside.

FIGURE 8

Fallen Angel Performance in 2002 and 2005 Was Significantly Worse than the Historical Average



Source: Barclays Research

Implications for Investment Grade and High Yield Indices

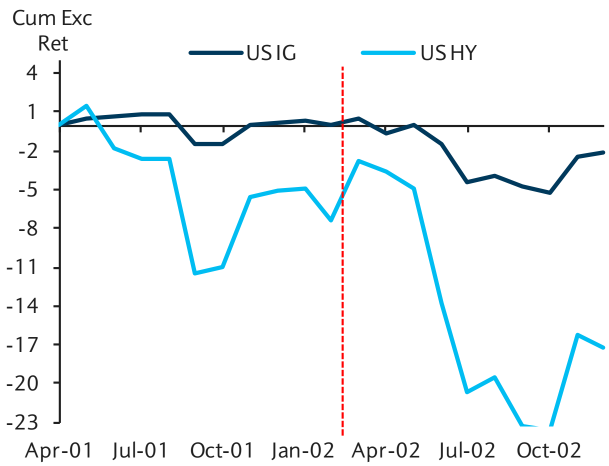
Index leakage would have a non-trivial, but manageable, effect on the US Corporate Index overall. Assuming our base case in which 3.5% of the index is downgraded to high yield and an average excess return of -10% from current levels would imply an index loss of about 35bp. While this is meaningful, it is still only a small fraction of the 190bp of carry that the index currently generates. In a more bearish scenario of 5% downgrades and 15% of losses, the excess return effect would be -75bp.

As mentioned before, \$155bn of downgrades would represent roughly 12% of the US High Yield Index. The sharp increase in amount outstanding, combined with the fund outflows the asset class has experienced over the past year, could drive technical selling pressure in high yield. In past sector downgrade events, a high-level analysis seems to suggest at least some technical effects. Figures 9 and 10 show that high yield did underperform investment grade in the periods leading up to the downgrades (April-May 2005 for autos and February-April 2002 for telecoms). However, to a large extent, these periods of downgrades coincided with broader fundamental weakness in other markets and the economy overall. For example, the underperformance of high yield in the second half of 2002 matched a widespread risk asset sell-off, so it is hard to determine to what extent it was technically driven.

Ultimately, we believe that this means that the correlation between energy and the broader high yield market is likely to remain high. In the near to medium term, it remains to be seen when or if the two markets may de-link.

FIGURE 9

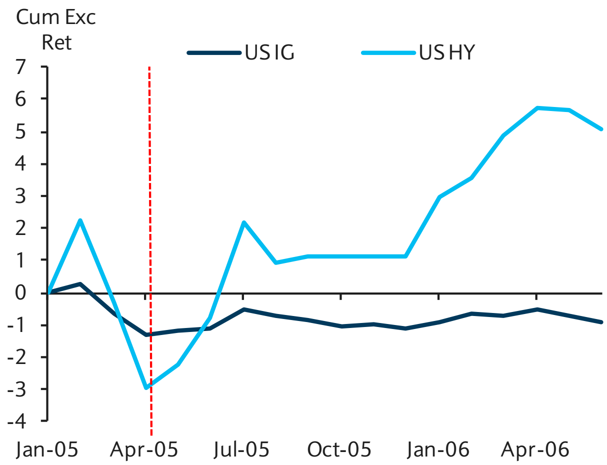
High Yield versus Investment Grade Performance around 2002 Telecom Downgrades



Note: Red line indicates downgrade event. Source: Barclays Research

FIGURE 10

High Yield versus Investment Grade Performance around 2005 Automotive Downgrades



Note: Red line indicates downgrade event. Source: Barclays Research

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Overweight (OW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to exceed the six-month expected excess return of the relevant sector.
Market Weight (MW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be in line with the six-month expected excess return of the relevant sector.
Underweight (UW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be less than the six-month expected excess return of the relevant sector.
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Overweight (OW): The analyst expects the six-month total return of the debt security subject to this rating to exceed the six-month expected total return of the relevant sector.
Market Weight (MW): The analyst expects the six-month total return of the debt security subject to this rating to be in line with the six-month expected total return of the relevant sector.
Underweight (UW): The analyst expects the six-month total return of the rated debt security subject to this rating to be less than the six-month expected total return of the relevant sector.
Rating Suspended (RS): The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity in a merger or strategic transaction involving the company.
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Overweight (OW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable)

to exceed the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively.
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