

## SECTOR IN-DEPTH

20 April 2016

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## The Crossover Zone

# Potential fallen angels have \$265 billion of debt, with 80% from non-US companies

The Crossover Zone is a quarterly report analyzing the movement of global non-financial companies through the rating categories closest to the line between investment grade and speculative grade. This report focuses on potential fallen angels and rising stars. These are, respectively, investment-grade companies that are close to a possible downgrade to speculative grade and speculative-grade companies that are close to a possible upgrade to investment grade.

**Potential fallen angels had \$265 billion in debt as of 31 March.** That figure is up from \$234 billion at year-end 2015, and \$105 billion as of 31 March 2015. Non-US issuers represent 80% of the \$265 billion outstanding as of 31 March.

**Fifty-one companies became fallen angels in the first quarter, versus just eight in the fourth quarter and 45 for all of 2015.** The pressure on commodity-linked industries and sovereign ratings were key drivers of the increased activity. Fallen angels had \$213 billion in debt at the time of crossover during the first quarter, the second highest quarterly amount over the past nine quarters. About half of the outstanding amount was from US issuers.

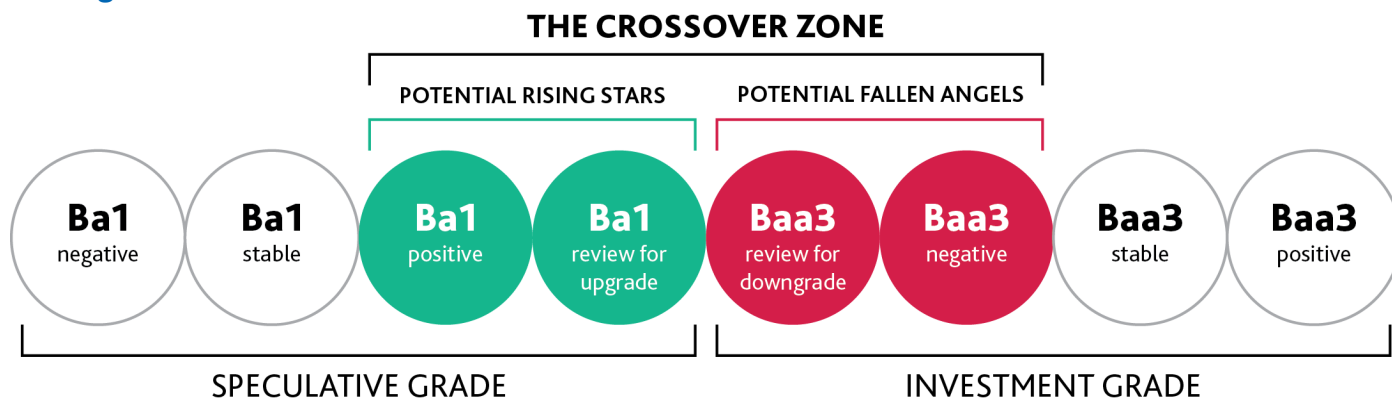
**There were 72 non-financial companies, including utilities, in the crossover zone as of 31 March.** That is two fewer than the count as of 31 December 2015, and 23 more than a year ago. In the last three months, potential fallen angels decreased to 59 from 63, while potential rising stars increased to 13 from 11.

**Potential fallen angels fell by four, but over half the list is new this quarter.** Thirty-four companies entered the zone as potential fallen angels, but 38 exited during the quarter. Fundamental credit developments drove 27 of the 34 rating actions, with six being sovereign-related and one the result of M&A. Of the 38 companies that left the zone, 33 were downgraded to speculative grade and five returned to Baa3 stable. Nineteen downgrades were due to Brazil's sovereign credit rating being lowered and 12 were at commodities-linked companies.

**Potential rising stars increased by two in the quarter.** Four companies entered the crossover zone as potential rising stars in the quarter, three due to fundamental strength and one associated with an M&A transaction. Two companies left the zone and were upgraded to investment grade during the quarter.

**Brazilian crossovers are essentially played out.** Negative rating actions during the quarter flushed out a large portion of the potential fallen angels from the prior period. In Brazil, only one corporate issuer – [Ambev SA](#) (Baa3 negative) – retains an investment-grade rating after the country's sovereign credit downgrade pushed all other corporates to speculative grade.

## Getting in the zone



The crossover zone refers to the ratings closest to the line between speculative grade and investment grade. Companies in the zone are rated Baa3 or Ba1. To be considered in the zone, companies rated Baa3 must be on review for downgrade or have a negative outlook, while companies rated Ba1 must be on review for upgrade or have a positive outlook.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

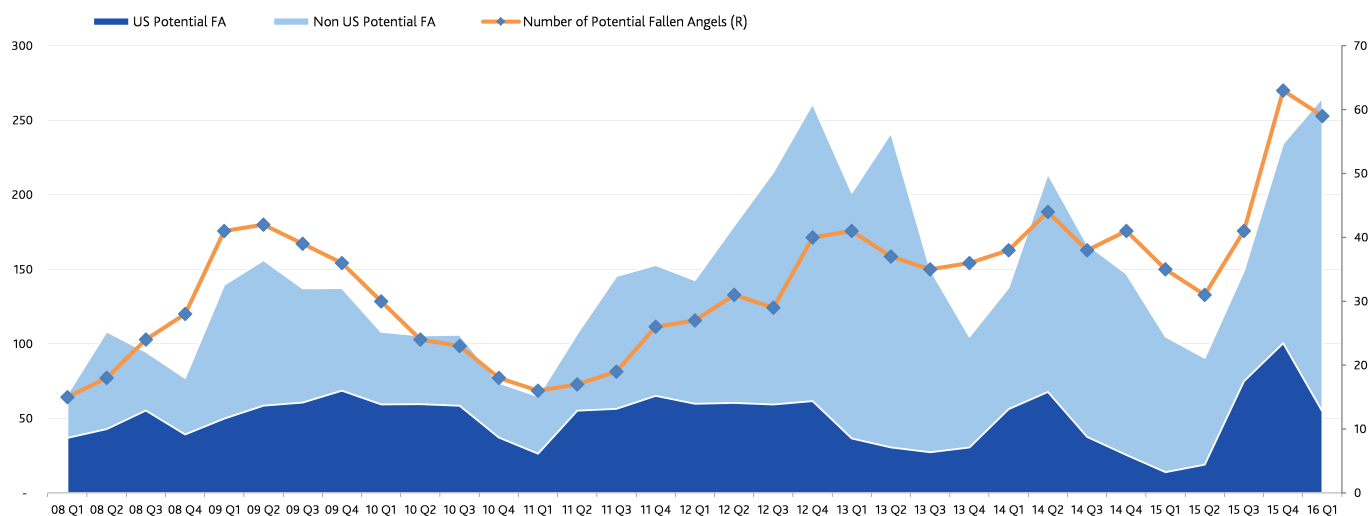
## Debt load of potential fallen angels grows to \$265 billion

Total debt outstanding for all potential fallen angels was \$265 billion at the end of the first quarter, with the majority (80%) at non-US companies. The volume of debt outstanding for non-US potential fallen angels has fluctuated more than for US potential fallen angels.

In 2013, two large non-US issuers, [Telecom Italia SpA](#) (Ba1 negative) and [Softbank Group Corp.](#) (Ba1 stable), spent several quarters in the crossover zone. Their high debt balances show up in the peaks for that timeframe in Exhibit 1. However, the debt volume growth for potential fallen angels over the past two quarters is more evenly distributed, with fewer mega-cap issuers in the crossover zone.

Exhibit 1

### Potential Fallen Angels, Total Debt Load and Count US Dollar Balance (billions)



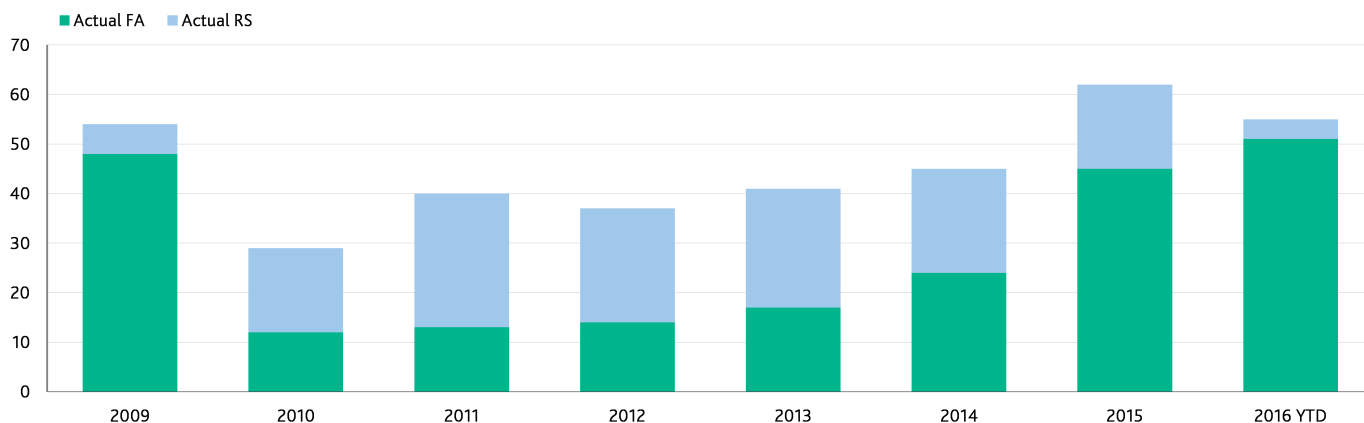
Left axis represents \$billions of debt outstanding, right axis represents issuer count

Source: Moody's Investors Service

## Actual crossovers spike in the first quarter

Fifty-one companies became fallen angels in the first quarter, a sharp increase from the eight in the fourth quarter and topping the total of 45 for all of 2015. The pressure on commodity-linked industries and sovereign ratings drove the increased activity. Thirty-three of the 51 fallen angels were in the crossover zone at the end of 2015, yet crossover zone membership remained high in the first quarter, and we expect more fallen angels throughout 2016.

Exhibit 2  
Actual Crossovers, 2009-16 YTD

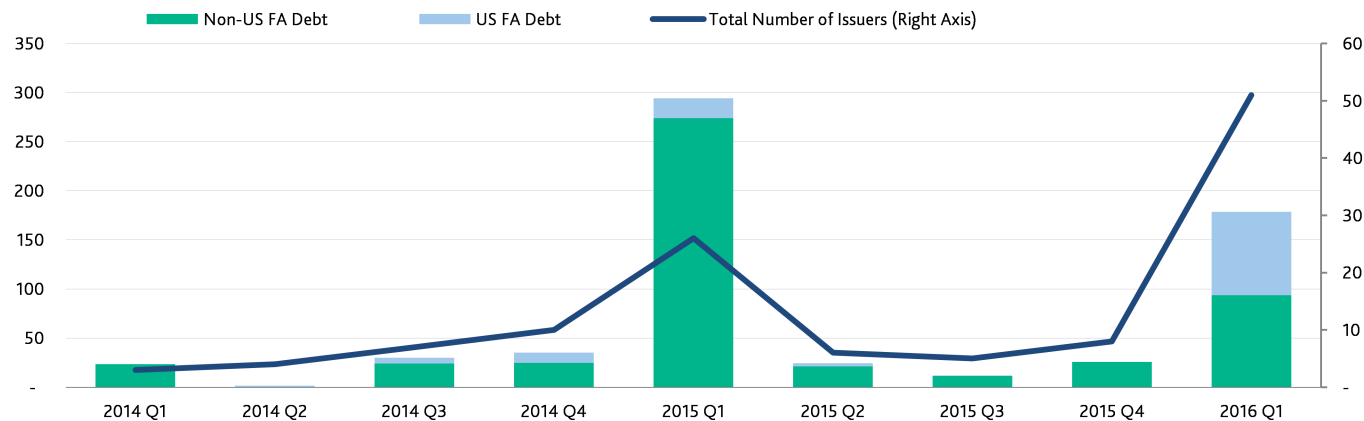


Note: Data prior to 2014 excludes Utilities  
Source: Moody's Investors Service

### Debt outstanding for actual fallen angels was \$213 billion in the first quarter

Prior to the first quarter of 2016, the volume of debt that actually crossed from investment grade to speculative grade was dominated by non-US issuers. The peak crossover period in the first quarter 2015 included oil giant [Petrobras](#) (B3 negative) and 18 Russian corporate issuers that were downgraded in response to our downgrade of Russia's sovereign rating. However, this changed when 51 companies, including 16 US oil & gas issuers, became fallen angels in the first quarter of this year.

Exhibit 3  
Actual Fallen Angels, Total Debt Load and Count  
US Dollar Balance (billions) as of Crossover Date



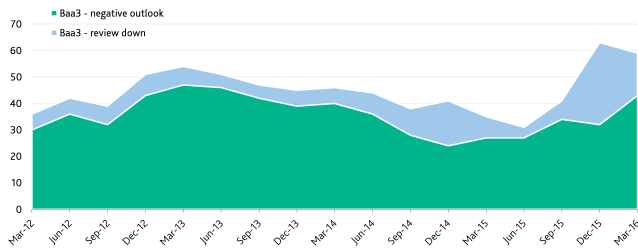
Source: Moody's Investors Service

### Number of companies in the crossover zone fell by 2

There were 72 non-financial companies, including utilities, in the crossover zone as of 31 March, two less than as of 31 December and 22 more than a year ago. In the last three months, potential fallen angels decreased to 59 from 63, while potential rising stars increased to 13 from 11.

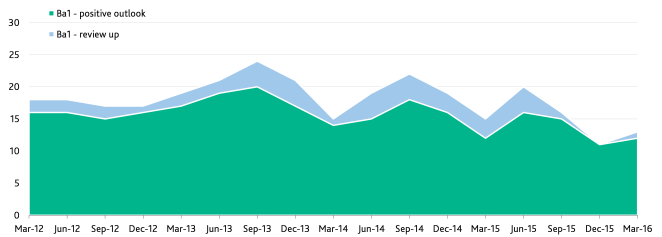
Most companies in the zone have positive or negative outlooks, rather than ratings on review (see Exhibit 4 & 5), especially after the downgrades of oil & gas and mining companies that were on review last quarter. In the latest quarter, there were 51 actual fallen angels and four actual rising stars.

Exhibit 4  
Potential Fallen Angels



Source: Moody's Investors Service

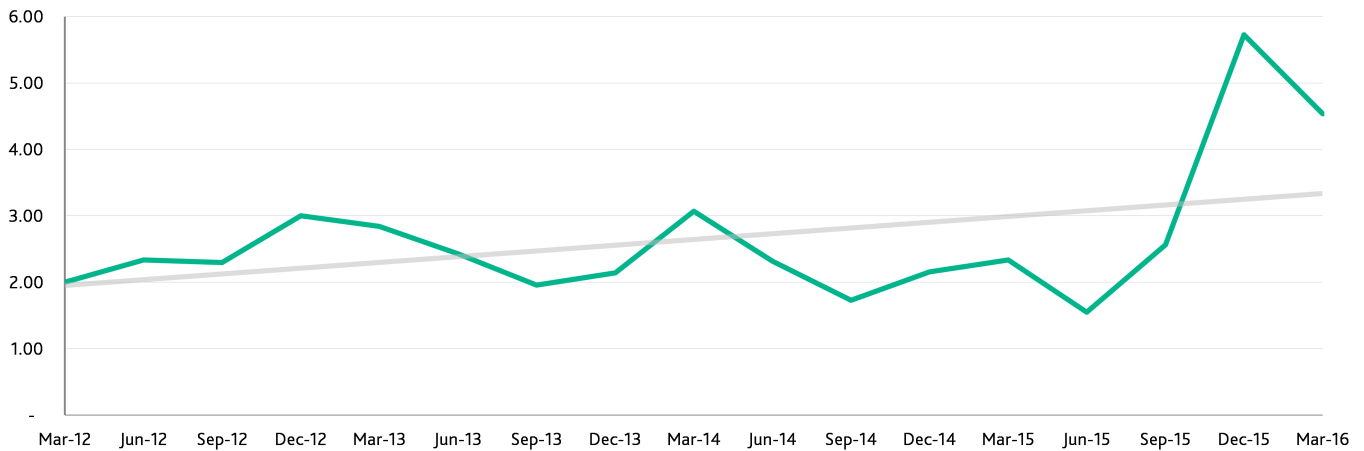
Exhibit 5  
Potential Rising Stars



Source: Moody's Investors Service

The ratio of potential fallen angels to potential rising stars fell to 4.5x at 31 March from 5.7x in the fourth quarter of 2015, due to a slight decline of potential fallen angels, coupled with a modest increase in potential rising stars. The 5.7x ratio at year-end 2015 is the largest since June 2009 (see Exhibit 6).

Exhibit 6  
Ratio of Potential Fallen Angels to Potential Rising Stars



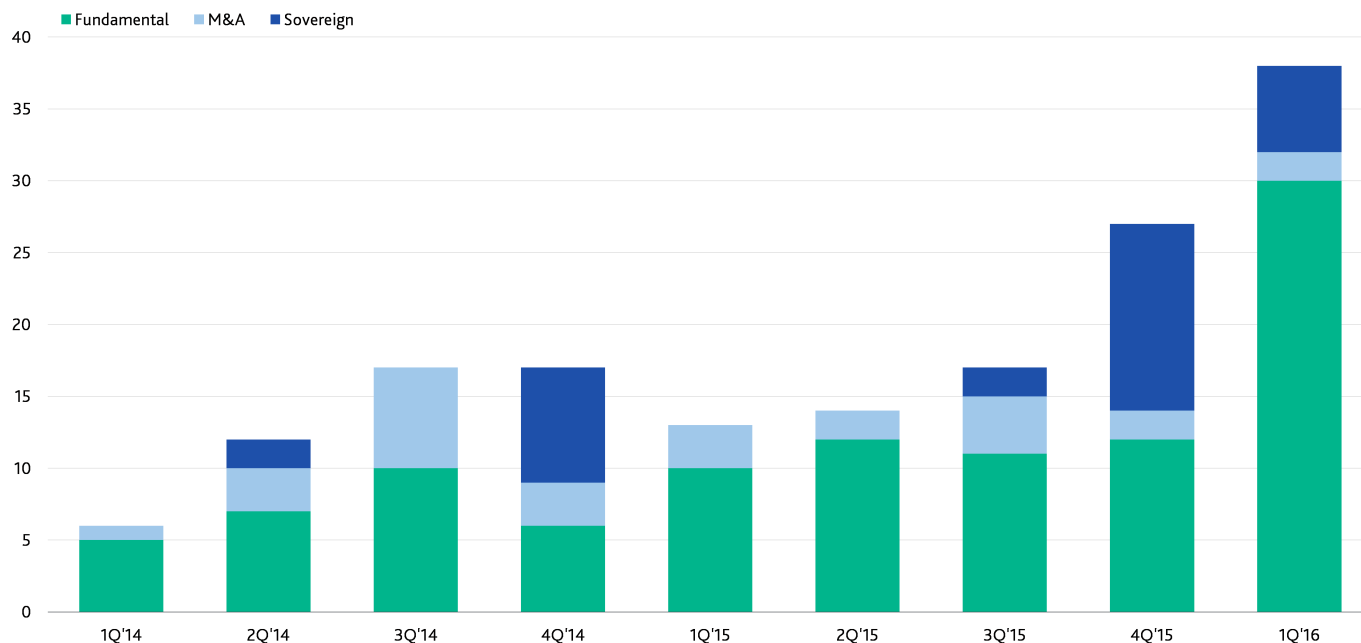
Note: green line represents actual ratio, grey line represents linear trend  
Source: Moody's Investors Service

## Fundamental credit developments drove most activity

Thirty-eight companies moved into the crossover zone in the quarter, with 30 of those owing to fundamental credit developments, two the result of M&A-related rating actions and six following sovereign-related rating actions (see Exhibit 7).

Exhibit 7

### New Crossover Zone Entrants by Rating Action Driver



Source: Moody's Investors Service

## Brazilian crossovers are essentially played out

Negative rating actions during the quarter flushed out a large portion of the potential fallen angels from the prior period. Yet, the crossover zone membership remains high and we expect more fallen angels throughout 2016. The list of potential fallen angels is more diverse than last quarter, when Brazilian and commodities-linked issuers dominated the list.

Twenty-eight Brazilian companies became fallen angels in the first quarter following our downgrade of Brazil's sovereign rating to Ba2 negative on 24 February 2016. On the heels of these actions, the only Brazilian corporate issuer that remains investment grade is Ambev.

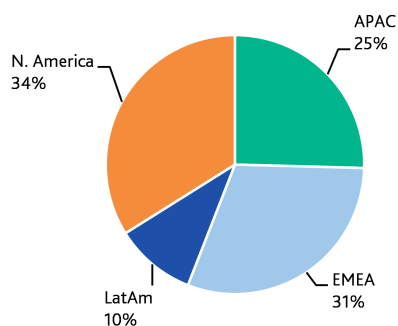
Downgrades of commodities-related companies resulted in 22 actual fallen angels, 12 of which were in the crossover zone as potential fallen angels at the end of 2015, and 10 that skipped the crossover zone altogether. At the end of the first quarter, 17 companies in commodities-linked industries were potential fallen angels, or around 30% of total.

## Regional balance for potential fallen angels shifts after Latin America downgrades

The regional representation of potential fallen angels has shifted to a more balanced state as of 31 March. Latin American issuers were only 10% of the total this quarter versus 35% at year-end 2015. Potential rising stars are also fairly balanced by region, except for Latin America, which has no potential rising stars, reflecting the challenging credit conditions in the region.

Exhibit 8

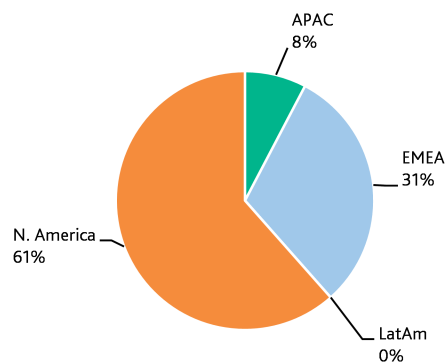
**Potential Fallen Angels by Region (31 March)**



Source: Moody's Investors Service

Exhibit 9

**Potential Rising Stars by Region (March 31)**



Source: Moody's Investors Service

## Thirty-four new potential fallen angels and four new potential rising stars entered the zone

Thirty-four companies entered the crossover zone as potential fallen angels in the first quarter. Twenty-seven had ratings or outlook changes due to deterioration of their fundamentals, six were related to sovereign ratings pressure and one the result of an M&A transaction.

Four companies became potential rising stars in the quarter, three from an improvement in fundamental credit strength and one due to an M&A transaction.

Exhibit 10

## Companies into the Zone (Q1 16)

Companies into the Zone	To	From	Potential Fallen Angel (FA) or Rising Star (RS)	Reason	Rationale
Ambev S.A.	Baa3 NEG	Baa1 STA	FA	Sovereign	The rating action follows Moody's downgrade on February 24, 2016 of Brazil's government bond rating to Ba2 from Baa3. I
Apache Corporation	Baa3 NEG	Baa1 RUR - D	FA	Fundamental	Expectation of much lower cash flow generation and correspondingly weak cash flow based credit metrics.
Avago Technologies Cayman Finance Ltd.	Ba1 POS	NR	RS	Fundamental	Moody's expects that leverage will rapidly improve, with debt to EBITDA (Moody's adjusted) declining toward 2.5x by calendar year end 2016.
Barrick Gold Corp.	Baa3 NEG	Baa3 STA	FA	Fundamental	The negative ratings outlook incorporates the risk in Barrick's ability to execute on its planned debt and leverage reduction in 2016.
Binhai Investment Company Limited	(P)Baa3 RUR - D	Baa3 STA	FA	Fundamental	The review for downgrade is largely driven by the significant weakening in the credit profile of BICL's parent and largest gas sales customer, Tianjin TEDA Investment Holdings Co Ltd (TEDA, unrated).
Bright Food (Group) Co., Ltd.	Baa3 NEG	Baa3 STA	FA	Sovereign	The outlook change follows Moody's decision to change to negative from stable the outlook on the Aa3 rating of China, as announced on March 2, 2016.
Canadian Natural Resources Limited	Baa3 NEG	Baa1 STA	FA	Fundamental	The downgrade reflects its diminished cash flow and very high leverage in the currently weak commodities price environment
China Metallurgical Group Corporation	Baa3 NEG	Baa3 STA	FA	Sovereign	The outlook change follows Moody's decision to change to negative from stable the outlook on the Aa3 rating of China, as announced on March 2, 2016.
China Travel Service (Holdings) Hong Kong Ltd	Baa3 NEG	Baa3 STA	FA	Sovereign	The outlook change follows Moody's decision to change to negative from stable the outlook on the Aa3 rating of China, as announced on March 2, 2016.
Ecopetrol S.A.	Baa3 RUR - D	Baa2 STA	FA	Fundamental	Ecopetrol's ratings downgrade was triggered by persisting stressed oil prices, which will continue to negatively affect the company's cash flow generation and credit metrics, increasing its credit risk
Edison S.p.A.	Baa3 RUR - D	Baa3 STA	FA	Fundamental	Follows the placement of Edison's parent, Électricité de France (EDF)'s A1 senior unsecured ratings of on review for downgrade
Empresa Nacional de Telecomunicaciones S.A.	Baa3 NEG	Baa2 STA	FA	Fundamental	The downgrade was based on the company's shift in credit quality following its expansion into the Peruvian market and its limited capacity to significantly improve its credit profile within the next 24 months, as well as softer growth and stronger competition in both Chilean and Peruvian markets.
Goldcorp Inc.	Baa3 NEG	Baa2 RUR - D	FA	Fundamental	The downgrade of Goldcorp's rating reflects the deterioration of its profitability and coverage metrics and our expectation they will remain weak through 2016 combined with minimal free cash flow generation at a \$1,100/oz gold price
Hengli (Hong Kong) Real Estate Limited	Baa3 NEG	Baa3 STA	FA	Sovereign	The outlook change follows Moody's decision to change to negative from stable the outlook on the Aa3 rating of China, as announced on March 2, 2016.



Companies into the Zone	To	From	Potential Fallen Angel (FA) or Rising Star (RS)	Reason	Rationale
Ingram Micro Inc	Baa3 RUR - D	Baa3 STA	FA	M&A	The rating review reflects the uncertainty related to the post-acquisition capital structure, liquidity position and financial policies
Intergas Central Asia	Baa3 RUR - D	Baa3 STA	FA	Fundamental	The review for downgrade considers that much weaker industry fundamentals have potential to warrant rating changes for all companies covered in this press release
JSC KazTransGas	Baa3 RUR - D	Baa3 STA	FA	Fundamental	The review for downgrade considers that much weaker industry fundamentals have potential to warrant rating changes for all companies covered in this press release
JSC KazTransOil	Baa3 RUR - D	Baa3 STA	FA	Fundamental	The review for downgrade considers that much weaker industry fundamentals have potential to warrant rating changes for all companies covered in this press release
Kazakhstan Electricity Grid Operating Company	Baa3 RUR - D	Baa3 STA	FA	Sovereign	This action follows Moody's placement of the Republic of Kazakhstan's Baa2 government bond rating on review for downgrade on 4th March 2016
Kazatomprom JSC	Baa3 RUR - D	Baa3 STA	FA	Fundamental	The actions reflect Moody's effort to recalibrate the ratings in the mining portfolio to align with the fundamental shift in the credit conditions of the global mining sector.
KazMunayGas NC JSC	Baa3 RUR - D	Baa3 STA	FA	Fundamental	The actions reflect Moody's effort to recalibrate the ratings in the mining portfolio to align with the fundamental shift in the credit conditions of the global mining sector.
Kennametal Inc.	Baa3 NEG	Baa2 STA	FA	Fundamental	The downgrade of Kennametal's senior unsecured ratings to Baa3 from Baa2 results from on-going weak operating performance, our expectation that Kennametal's key end markets will remain challenged over the next 12 months, and that credit metrics will deteriorate despite the company's restructuring efforts and progress in reducing debt.
Lear Corporation	Ba1 POS	Ba1 Stable	RS	Fundamental	The positive rating outlook incorporates the expectation that Lear's already comparatively strong credit metrics will gradually improve through 2017
LG Electronics Inc.	Baa3 NEG	Baa3 STA	FA	Fundamental	The negative outlook primarily reflects our view that the profitability of both LGE and its 37.9%-owned affiliate LG Display Co Ltd (LGD, unrated) will remain pressured in 2016, reflecting intense competition in mobile handset and home electronics segments as well as worsening supply glut in LCD panel segment
Methanex Corporation	Baa3 NEG	Baa3 STA	FA	Fundamental	The change in outlook to negative reflects the pressure on EBITDA and metrics resulting from the substantial decline in methanol prices, which have moved down more or less in tandem with the drop in oil prices
Noble Energy, Inc.	Baa3 NEG	Baa2 RUR - D	FA	Fundamental	The downgrade reflects a gradual deterioration in the company's cash flow generation and credit metrics through 2017
Petroleos Mexicanos	Baa3 NEG	Baa1 NEG	FA	Fundamental	Moody's believes that PEMEX's credit metrics will worsen as oil prices remain low, production continues to drop, taxes remain high, and the company must adjust down capital spending to meet its budgetary targets

Companies into the Zone	To	From	Potential Fallen Angel (FA) or Rising Star (RS)	Reason	Rationale
Progressive Waste Solutions Ltd.	Ba1 RUR - upgrade	Ba1 Stable	RS	M&A	The review for possible upgrade was prompted by the likelihood that Progressive's credit profile will improve once it merges with Waste Connections, particularly its scale and diversity.
Saipem S.p.A.	(P)Baa3 RUR - D	Baa3 STA	FA	Fundamental	The review for downgrade considers that much weaker industry fundamentals increase the risk of project cancellations and delays and reduced capital spending in the oil and gas sector and have the potential to warrant a rating change for Saipem
Shanghai Huayi (Group) Company	Baa3 NEG	Baa2 RUR - D	FA	Fundamental	The downgrade of Shanghai Huayi's issuer rating and the lowering of the company's BCA reflects our expectations of its weak earnings and high debt leverage, against the backdrop of an oversupplied commodity chemicals industry, because of China's slowing economy
Sino-Ocean Land Holdings Limited	Baa3 NEG	Baa3 STA	FA	Fundamental	The negative outlook on Sino Ocean's ratings reflects our concern on the company's weakening credit metrics
UPM-Kymmene	Ba1 POS	Ba1 Stable	RS	Fundamental	The outlook change to positive reflects the achieved track record in financial performance and resilience of UPM's business model over the past years despite challenging economic conditions as well as our expectation of sustainability in recent performance improvements.
Wanda Commercial Properties (H K) Co. Limited	Baa3 NEG	Baa3 STA	FA	Fundamental	Wanda HK's rating outlook has been changed to negative because of its parent's weakened credit profile
Wanhua Chemical Group Co., Ltd.	Baa3 RUR - D	Baa3 STA	FA	Fundamental	Our review of Wanhua Chemical's ratings reflects the company's weaker than expected operating performance for the year ended 31 December 2015, against the backdrop of a slowdown in Chinese demand, and the challenges that the company faces in lowering its elevated debt levels over the next 12-18 months
Weir Group Plc (The)	Baa3 NEG	Baa1 NEG	FA	Fundamental	The rating action reflects our expectations that Weir's credit metrics will remain well below levels commensurate with a Baa1 rating at least through 2017
Williams Partners L.P.	Baa3 NEG	Baa2 NEG	FA	Fundamental	The downgrade of Williams, WPZ and the rated pipeline subsidiaries reflects our expectation that the partnership's financial leverage will not decline sufficiently to support its existing ratings as WPZ contends with a more challenging operational environment."
Yamana Gold, Inc.	Baa3 NEG	Baa3 STA	FA	Fundamental	Moody's confirmed the ratings of Yamana Gold Inc at Baa3 on March 17 and changed the rating outlook to negative, concluding the review for possible downgrade initiated on January 21, 2016. The negative outlook reflects the risk in Yamana's ability to execute on debt and leverage reduction
Yuexiu Property Company Limited	Baa3 NEG	Baa3 STA	FA	Fundamental	The confirmation of Yamana's Baa3 rating is based on our expectation management will reduce leverage below 3

Exhibit 11

**Movers Within the Crossover Zone (1Q'16)**

<b>Movement within the zone</b>	<b>To</b>	<b>From</b>	<b>Potential Fallen Angel (FA) or Rising Star (RS)</b>	<b>Reason</b>	<b>Rationale</b>
Darden Restaurants, Inc.	Ba1 POS	Ba1 Positive	RS	Fundamental	review for upgrade reflects Darden's improved earnings performance with positive same store sales trends at the company's core brands Olive Garden and LongHorn
Gerresheimer AG	Baa3 NEG	Baa3 RUR - downgrade	FA	M&A	The negative outlook reflects the material increase in adjusted debt/EBITDA following the acquisition of Centor and disposal of the tubing business
National Company Kazakhstan Temir Zholy JSC	Baa3 RUR - downgrade	Baa3 NEG	FA	Sovereign	Follows Moody's decision on 4 March to place the Government of Kazakhstan's Baa2 government bond and issuer rating on review for downgrade
Repsol Oil & Gas Canada Inc.	Baa3 NEG	Baa3 RUR - downgrade	FA	Fundamental	The confirmations with a negative outlook reflect pressure on Repsol's earnings and cash flow protection from sustained oil price weakness as well as execution and integration risks related to the <u>company's strategic plan</u> .
Yamana Gold, Inc.	Baa3 NEG	Baa3 RUR - downgrade	FA	Fundamental	The negative outlook reflects the risk in Yamana's ability to execute on debt and leverage reduction.

Exhibit 12

## Companies That Left the Crossover Zone (1Q'16)

Companies Out of the Zone	To	From	Actual Fallen Angel/ Rising Star	Reason	Rationale
Qantas Airways Ltd.	Baa3 STA	Ba1 POS	Rising Star	Fundamental	The upgrade of the senior unsecured rating to Baa3 is based on the significant reduction in leverage since FY2015, on the back of lower fuel prices and continued success of its transformation programme as well as a reduction in debt by AUD1 billion from the level in FY2014
Renault S.A.	Baa3 STA	Ba1 POS	Rising Star	Fundamental	Renault's new Baa3 investment grade ratings reflect the car maker's track record of maintaining positive and increasing free cash flow and fairly steady financial ratios, as well as delivering increased and sustained profitability in its automotive operations
AngloGold Ashanti Limited	Baa3 STA	Baa3 NEG	Outlook stabilized	Fundamental	The confirmation of AngloGold Ashanti's Baa3 rating is based upon deleveraging and further operating cost savings initiatives that the company delivered in 2015
Cimarex Energy Co.	Baa3 STA	Baa3 RUR-D	Rating Confirmed	Fundamental	The Baa3 rating is supported by management's maintenance of highly conservative financial policies through various commodity price cycles.
EQT Corp.	Baa3 STA	Baa3 RUR-D	Rating Confirmed	Fundamental	The confirmation reflects EQT's high quality acreage position in the Marcellus Shale and very low cost structure that allows it to replace production and reserves even in a weak natural gas price environment.
Reliance Steel & Aluminum Co	Baa3 STA	Baa3 NEG	Outlook stabilized	Fundamental	The change in outlook reflects the recent improvement in the company's credit metrics and liquidity and the expectation they will remain at a level that is commensurate with its current investment grade rating
Pioneer Natural Resources Company	Baa3 STA	Baa3 RUR-D	Rating Confirmed	Fundamental	Pioneer's Baa3 senior unsecured rating is supported by its sizeable and long-lived asset base, with good visibility into consistent oil-focused production growth directly attributable to the strength of its operations in the prolific Permian Basin
AES Tiete S.A.	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Anglo American plc	Ba3 NEG	Baa3 RUR-D	Fallen Angel	Fundamental	The company now faces a higher business risk due to deterioration in commodities market conditions and a longer and more uncertain deleveraging period than previously expected
AVIC International Holding Corporation	Ba1 NEG	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade reflects our concern on the company's persistently high leverage, as a result of its aggressive land acquisition, low levels of profitability and consistently negative free cash flows from operations
Bandeirante Energia S.A.	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Braskem SA	Ba1 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Canadian Oil Sands Limited	Ba3 STA	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade of Canadian Oil Sands Limited reflects its very high cost base and Moody's expectation of very high leverage and weak interest coverage in 2016 and 2017 in the currently very weak oil price environment
Cia de Gas de Sao Paulo - COMGAS	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Companhia Energetica de Sao Paulo	(P)Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company

Companies Out of the Zone	To	From	Actual Fallen Angel/ Rising Star	Reason	Rationale
Construtora Norberto Odebrecht S.A.	Ba2 RUR-D	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Continental Resources, Inc.	Ba3 STA	Baa3 RUR-D	Fallen Angel	Fundamental	The Ba3 CFR reflects the company's high level of debt, elevated leverage metrics, geographic concentration, and the lack of oil hedges in the current depressed crude oil price environment.
Duke Energy Int'l Geracao Paranapanema SA	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Embraer S.A.	Ba1 NEG	Baa3 NEG	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Energest S.A.	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
EnLink Midstream Partners, LP	Ba2 NEG	Baa3 NEG	Fallen Angel	Fundamental	While EnLink's stand-alone credit profile is more consistent with a Ba1 rating, EnLink's high customer concentration risk with Devon combined with Devon's controlling ownership effectively limits its rating to that of Devon's
Espirito Santo Centrais Eletricas - ESCELSA	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Freeport-McMoRan Inc.	B1 NEG	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade reflects the deterioration in FCX's debt protection metrics and increase in leverage as a result of the more precipitous drop in copper prices in 2015, particularly in the last six months of the year as well as the collapse in oil prices, with prices continuing to be pressured downward in 2016
Gerdau S.A.	Ba3 NEG	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade reflects the severity of the global steel industry downturn, the continued weakness of the steel industry in Brazil, a key market for Gerdau, and our expectations that the company's credit metrics, particularly margins, leverage and interest coverage will remain pressured in the next 12-18 months
ITAIPU Binacional	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Joy Global Inc.	Ba3 STA	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade reflects continued deterioration in the company's end markets, leading to the ongoing contraction in scale and pressure on debt protection metrics
Localiza Rent a Car S.A.	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	These actions reflect Moody's view that the recent sovereign rating action, as a result of deteriorating economic and fiscal perspectives together with worsening governability and policy paralysis, will negatively affect the credit quality of the company
Murphy Oil Corporation	Ba3 NEG	Baa3 RUR-D	Fallen Angel	Fundamental	Moody's assigned a Ba3 Corporate Family Rating (CFR), which reflects higher financial leverage through 2017, with increasing debt balances and declining production. In addition, the company has a weak liquidity profile, with upcoming bank and bond maturities in 2017.
Noble Holding International Limited	B1 STA	Baa3 NEG	Fallen Angel	Fundamental	The downgrade to B1 reflects Moody's expectations that Noble's leverage, margins and cash flow metrics will deteriorate significantly in 2017 and 2018 as its contracted revenue backlog rolls off and rigs are re-contracted at lower dayrates and overall fleet utilization declines

Companies Out of the Zone	To	From	Actual Fallen Angel/ Rising Star	Reason	Rationale
Rowan Companies, Inc.	B1 STA	Baa3 NEG	Fallen Angel	Fundamental	The downgrade to B1 reflects the high likelihood that Rowan's cash flow based leverage metrics will significantly deteriorate as existing contracts roll-off, combined with the muted outlook for utilization rates and dayrates at <u>least through 2018</u>
Southwestern Energy Company	B1 STA	Baa3 RUR-D	Fallen Angel	Fundamental	The B1 CFR reflects Southwestern's low capital efficiency which is highly levered to natural gas prices, elevated leverage metrics, and reserve concentration risk in the Fayetteville and Marcellus Shales. Southwestern has had increasing leverage since early 2015 partially due to its large debt <u>financed Appalachian acquisitions</u>
STMicroelectronics N.V.	Ba1 STA	Baa3 NEG	Fallen Angel	Fundamental	Moody's downgraded ST's rating to Ba1 as the rating agency believes that expected 2016 metrics are not commensurate with a Baa3 rating
Vale S.A.	Ba3 NEG	Baa3 NEG	Fallen Angel	Fundamental	The downgrade of Vale's ratings to Ba3 reflects our expectation of weaker performance over the next 12 months resulting from the substantial decline in iron ore and base metals prices observed in 2015 and our expectation that prices will not likely experience any meaningful recovery before 2017
Votorantim Participacoes S.A.	Ba2 NEG	Baa3 RUR-D	Fallen Angel	Sovereign	The downgrade of Votorantim's global scale ratings was prompted by the downgrade of Brazil's government bond rating to Ba2 from Baa3
Williams Companies, Inc. (The)	Ba1 RUR-D	Baa3 RUR-D	Fallen Angel	Fundamental	The downgrade of Williams, WPZ and the rated pipeline subsidiaries reflects our expectation that the partnership's financial leverage will not decline sufficiently to support its existing ratings as WPZ contends with a more <u>challenging operational environment</u>

## Appendix 1 - Potential Fallen Angels

Issuer	Country	Region	Sector	Outlook / Review	Date Current Outlook / Review	Days since outlook change
Binhai Investment Company Limited	BERMUDA	APAC	ELECTRIC	RUR-D	04 Feb 2016	57
Bright Food (Group) Co., Ltd.	CHINA	APAC	FOOD/SOFT DRINKS	NEG	03 Mar 2016	29
China Metallurgical Group Corporation	CHINA	APAC	CONSTRUCTION	NEG	03 Mar 2016	29
China National Gold Group Corporation	CHINA	APAC	METALS/MINING	RUR-D	22 Jan 2016	70
China Travel Service (Holdings) Hong Kong Ltd	HONG KONG	APAC	REAL ESTATE	NEG	03 Mar 2016	29
Greenland Holding Group Company Limited	CHINA	APAC	HOME BUILDING	NEG	30 Jul 2015	246
Hengli (Hong Kong) Real Estate Limited	HONG KONG	APAC	HOME BUILDING	NEG	03 Mar 2016	29
LG Electronics Inc.	KOREA	APAC	CONSUMER PROD.	NEG	02 Feb 2016	59
Origin Energy Limited	AUSTRALIA	APAC	UTILITY	RUR-D	04 Apr 2016	-
POSCO Engineering & Construction Co., Ltd.	KOREA	APAC	CONSTRUCTION	NEG	16 Jun 2015	290
Shanghai Huayi (Group) Company	CHINA	APAC	CHEMICALS	NEG	02 Feb 2016	59
Sino-Ocean Land Holdings Limited	HONG KONG	APAC	CONSTRUCTION	NEG	29 Feb 2016	32
Wanda Commercial Properties (HK) Co. Limited	HONG KONG	APAC	HOME BUILDING	NEG	18 Feb 2016	43
Wanhua Chemical Group Co., Ltd.	CHINA	APAC	CHEMICALS	RUR-D	11 Mar 2016	21
Yuexiu Property Company Limited	HONG KONG	APAC	HOME BUILDING	NEG	23 Feb 2016	38
Anadolu Efes Biracilik ve Malt Sanayii A.S.	TURKEY	EMEA	CONSUMER PROD.	NEG	05 Sep 2014	574
Edison S.p.A.	ITALY	EMEA	UTILITY	RUR-D	13 Feb 2016	48
Gerresheimer AG	GERMANY	EMEA	GLASS	NEG	15 Jan 2016	77
Imperial Brands PLC	UNITED KINGDOM	EMEA	TOBACCO	NEG	15 Jul 2014	626
Intergas Central Asia	KAZAKHSTAN	EMEA	ENERGY	RUR-D	22 Jan 2016	70
JSC KazTransGas	KAZAKHSTAN	EMEA	ENERGY	RUR-D	22 Jan 2016	70
JSC KazTransOil	KAZAKHSTAN	EMEA	ENERGY	RUR-D	22 Jan 2016	70
Kazakhstan Electricity Grid Operating Company	KAZAKHSTAN	EMEA	UTILITY	RUR-D	10 Mar 2016	22
Kazatomprom JSC	KAZAKHSTAN	EMEA	METALS/MINING	RUR-D	22 Jan 2016	70
KazMunayGas NC JSC	KAZAKHSTAN	EMEA	UTILITY	RUR-D	22 Jan 2016	70
MTN Group Limited	SOUTH AFRICA	EMEA	TELECOM	NEG	15 Dec 2015	108
National Company Kazakhstan Temir Zholy JSC	KAZAKHSTAN	EMEA	RAILROADS	RUR-D	10 Mar 2016	22
Remy Cointreau S.A.	FRANCE	EMEA	DISTILLERS/BREWERS	NEG	25 Jul 2014	616
REXAM PLC	UNITED KINGDOM	EMEA	CONT./GLASS/PKG	RUR-D	19 Feb 2015	407
Saipem S.p.A.	ITALY	EMEA	CONSTRUCTION	RUR-D	10 Feb 2016	51
Turkcell Iletisim Hizmetleri A.S.	TURKEY	EMEA	TELECOM	NEG	18 Sep 2015	196
UBM plc	JERSEY	EMEA	PRINTING/PUBLISHING	NEG	15 Dec 2015	108
Weir Group Plc (The)	UNITED KINGDOM	EMEA	GLASS	NEG	29 Feb 2016	32
Ambev S.A.	BRAZIL	LatAm	FOOD/SOFT DRINKS	NEG	25 Feb 2016	36
Cencosud S.A.	CHILE	LatAm	RETAIL-GROCERY	NEG	29 Jan 2015	428
Ecopetrol S.A.	COLOMBIA	LatAm	ENERGY	RUR-D	18 Jan 2016	74
Empresa Nacional de Telecomunicaciones S.A.	CHILE	LatAm	TELECOM	NEG	16 Feb 2016	45
Petroleos Mexicanos	MEXICO	LatAm	ENERGY	NEG	31 Mar 2016	1
Sigma Alimentos S.A. de C.V.	MEXICO	LatAm	CONSUMER PROD.	NEG	15 Nov 2013	868
Apache Corporation	UNITED STATES	N. America	ENERGY	NEG	25 Feb 2016	36

Issuer	Country	Region	Sector	Outlook / Review	Date Current Outlook / Review	Days since outlook change
Barrick Gold Corporation	CANADA	N. America	METALS/MINING	NEG	11 Mar 2016	21
Canadian Natural Resources Limited	CANADA	N. America	ENERGY	NEG	25 Feb 2016	36
CDK Global, Inc.	UNITED STATES	N. America	IT SERVICES	NEG	15 Dec 2015	108
Goldcorp Inc.	CANADA	N. America	METALS/MINING	NEG	11 Mar 2016	21
Harris Corporation	UNITED STATES	N. America	ELECTRONICS	NEG	09 Apr 2015	358
Ingram Micro Inc	UNITED STATES	N. America	TECHNOLOGY	RUR-D	18 Feb 2016	43
Kennametal Inc.	UNITED STATES	N. America	MACHINERY	NEG	20 Jan 2016	72
L-3 Communications Corporation	UNITED STATES	N. America	AEROSPACE/DEFENSE	NEG	24 Feb 2015	402
Lennox International Inc.	UNITED STATES	N. America	HARDWARE/TOOLS	NEG	21 Oct 2014	528
Methanex Corporation	CANADA	N. America	CHEMICALS	NEG	04 Feb 2016	57
Mississippi Power Company	UNITED STATES	N. America	UTILITY	NEG	05 Nov 2015	148
Motorola Solutions, Inc.	UNITED STATES	N. America	TECHNOLOGY	NEG	03 Dec 2015	120
Noble Energy, Inc.	UNITED STATES	N. America	ENERGY	NEG	18 Feb 2016	43
Potlatch Corporation	UNITED STATES	N. America	FOREST PROD./PAPER	NEG	30 Nov 2015	123
Repsol Oil & Gas Canada Inc.	CANADA	N. America	ENERGY	NEG	21 Mar 2016	11
SCANA Corporation	UNITED STATES	N. America	ENERGY	NEG	11 Sep 2015	203
Verisk Analytics, Inc.	UNITED STATES	N. America	TECHNOLOGY	NEG	11 May 2015	326
Williams Partners L.P.	UNITED STATES	N. America	ENERGY	NEG	07 Jan 2016	85
Yamana Gold, Inc.	CANADA	N. America	METALS/MINING	NEG	17 Mar 2016	15



## Appendix 2 - Potential Rising Stars

<u>Issuer</u>	<u>Country</u>	<u>Region</u>	<u>Sector</u>	<u>Outlook/Review</u>	<u>Date of Current Outlook / Review</u>	<u>Days since outlook change</u>
Sony Corporation	JAPAN	APAC	MANUFACTURING	POS	30 Jun 2015	276
Deutsche Lufthansa Aktiengesellschaft	GERMANY	EMEA	AIRLINES	POS	28 May 2014	674
Emaar Properties PJSC	UAE	EMEA	REAL ESTATE	POS	25 Feb 2015	401
UPM-Kymmene	FINLAND	EMEA	FOREST PROD./PAPER	POS	17 Feb 2016	44
William Hill plc	UNITED KINGDOM	EMEA	ENTERTAINMENT	POS	17 Jun 2015	289
Avago Technologies Cayman Finance Ltd.	CAYMAN ISLANDS	N. America	SEMICONDUCTORS	POS	08 Feb 2016	53
Brunswick Corporation	UNITED STATES	N. America	AMUSEMENTS	POS	23 Jun 2015	283
Darden Restaurants, Inc.	UNITED STATES	N. America	REST./FAST FOOD	POS	23 Jun 2015	0
Flextronics International Ltd.	UNITED STATES	N. America	MANAGEMENT SVCS.	POS	29 May 2015	308
Genpact Limited	BERMUDA	N. America	IT SERVICES	POS	08 May 2015	329
Lear Corporation	UNITED STATES	N. America	AUTO PARTS	POS	18 Feb 2016	43
Progressive Waste Solutions Ltd.	CANADA	N. America	ENVIRONMENTAL	RUR	19 Jan 2016	73
Tesoro Corporation	UNITED STATES	N. America	ENERGY	POS	02 Dec 2015	121

## Appendix 3 - Actual Fallen Angels

Issuer	Country	Region	Sector	To	From	Date
Hunt Oil Company	United States	N. America	Energy	Ba3 negative	Baa2 RUR-D	3/18/2016
SESI, L.L.C.	United States	N. America	Energy	B1 negative	Baa3 RUR-D	3/14/2016
Nabors Industries Inc.	United States	N. America	Energy	Ba2 negative	Baa2 RUR-D	3/3/2016
Diamond Offshore Drilling, Inc.	United States	N. America	Energy	Ba2 stable	Baa2 RUR-D	2/29/2016
Enscopl	United States	N. America	Energy	B1 stable	Baa2 RUR-D	2/29/2016
Noble Holding International Limited	Cayman Islands	N. America	Energy	B1 stable	Baa3 RUR-D	2/29/2016
Rowan Companies, Inc.	United States	N. America	Energy	B1 stable	Baa3 RUR-D	2/29/2016
Localiza Rent a Car S.A.	Brazil	LatAm	Transportation	Ba2 negative	Baa3 RUR-D	2/26/2016
Telefonica Brasil S.A.	Brazil	LatAm	Telecom	Ba1 negative	Baa2 RUR-D	2/26/2016
Globo Comunicacao e Participacoes S.A.	Brazil	LatAm	Media	Ba1 negative	Baa2 RUR-D	2/26/2016
Votorantim S.A.	Brazil	LatAm	Mining	Ba2 negative	Baa3 RUR-D	2/26/2016
Cielo S.A.	Brazil	LatAm	Bus. & Cons. Svcs.	Ba1 negative	Baa2 RUR-D	2/26/2016
Vale S.A.	Brazil	LatAm	Mining	Ba3 negative	Baa3 RUR-D	2/26/2016
Embraer S.A.	Brazil	LatAm	Aerospace/Defense	Ba1 negative	Baa3 negative	2/25/2016
Odebrecht Engenharia e Construcao S.A. (OEC)	Brazil	LatAm	Construction	Ba2 negative	Baa3 RUR-D	2/25/2016
BRF S.A.	Brazil	LatAm	Protein and Agr.	Ba1 negative	Baa2 RUR-D	2/25/2016
Ultrapar Participacoes S.A.	Brazil	LatAm	Retail	Ba1 negative	Baa2 RUR-D	2/25/2016
BRASKEM S.A.	Brazil	LatAm	Chemical	Ba1 negative	Baa3 RUR-D	2/25/2016
Raizen Energia S.A.	Brazil	LatAm	Protein and Agr.	Ba1 negative	Baa3 stable	2/25/2016
Devon Energy Corporation	United States	N. America	Energy	Ba2 negative	Baa1 RUR-D	2/25/2016
EnLink Midstream Partners, LP	United States	N. America	Energy	Ba2 negative	Baa3 RUR-D	2/25/2016
Marathon Oil Corporation	United States	N. America	Energy	Ba1 stable	Baa1 RUR-D	2/25/2016
Companhia de Eletricidade do Estado da Bahia	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
EATE - Emp. Amazonense Trans. Energ. S.A.	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
AES Tiete S.A.	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Bandeirante Energia S.A.	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Cia de Gas de Sao Paulo - COMGAS	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Companhia Energetica de Sao Paulo	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Duke Energy Int'l Geracao Paranapanema SA	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Energest S.A.	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
ENTE - Emp. Norte de Trans. de Energ. S.A	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Espirito Santo Centrais Eletricas - ESCELSA	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
ETEP - Emp. Paraense Trans. Energ. S.A.	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
ITAIPU Binacional	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
Transmissora Alianca de Energia Eletrica	Brazil	LatAm	Utility	Ba2 negative	Baa3 RUR-D	2/25/2016
STMicroelectronics N.V.	Switzerland	EMEA	Semiconductors	Ba1 stable	Baa3 negative	2/24/2016
Carpenter Technology Corporation	United States	N. America	Steel	Ba2 stable	Baa3 stable	2/19/2016
Cenovus Energy Inc.	Canada	N. America	Energy	Ba2 stable	Baa2 RUR-D	2/18/2016
Encana Corporation	Canada	N. America	Energy	Ba2 stable	Baa2 RUR-D	2/18/2016
Anadarko Petroleum Corporation	United States	N. America	Energy	Ba1 negative	Baa2 RUR-D	2/18/2016
Murphy Oil Corporation	United States	N. America	Energy	Ba3 negative	Baa3 RUR-D	2/18/2016
Continental Resources, Inc.	United States	N. America	Energy	Ba3 stable	Baa3 RUR-D	2/18/2016
Southwestern Energy Company	United States	N. America	Energy	B1 stable	Baa3 RUR-D	2/18/2016
Western Gas Partners, LP	United States	N. America	Energy	Ba1 negative	Baa3 RUR-D	2/18/2016

Issuer	Country	Region	Sector	To	From	Date
Hess Corporation	United States	N. America	Energy	Ba1 stable	Baa2 RUR-D	2/18/2016
Anglo American plc	United Kingdom	EMEA	Mining	Ba3 negative	Baa3 RUR-D	2/15/2016
Canadian Oil Sands Limited	Canada	N. America	Energy	Ba3 stable	Baa3 RUR-D	2/12/2016
Gerdau	Brazil	LatAm	Steel	Ba3 negative	Baa3 RUR-D	2/5/2016
AVIC International Holding Corporation	China	APAC	Bus. & Cons. Svcs.	Ba1 negative	Baa3 RUR-D	2/4/2016
Freeport-McMoRan Inc.	United States	N. America	Mining	B1 negative	Baa3 RUR-D	1/27/2016
Joy Global Inc.	United States	N. America	Manufacturing	Ba3 stable	Baa3 RUR-D	1/14/2016
Noble Group Ltd	Bermuda	APAC	Agricultural Cmnty.	Ba1 negative	Baa3 RUR-D	12/29/2015
Toshiba Corporation	Japan	APAC	Manufacturing	Ba2 RUR-D	Baa3 negative	12/22/2015
TransAlta Corporation	Canada	N. America	Utility	Ba1 stable	Baa3 negative	12/17/2015
Compania de Minas Buenaventura S.A.A.	Peru	LatAm	Metals & Mining	Ba1 RUR-D	Baa3 stable	12/16/2015
Con-way Incorporated	United States	N. America	Transp. Svcs.	B3 stable	Baa3 RUR-D	11/13/2015
Amec Foster Wheeler Plc	United Kingdom	EMEA	Construction	Ba1 stable	Baa3 stable	11/12/2015
Samarco Mineracao S.A.	Brazil	LatAm	Metals & Mining	Ba1 RUR-D	Baa3 stable	11/10/2015
Weatherford Int'l. Ltd.	Bermuda	N. America	Energy	Ba1 stable	Baa3 negative	10/27/2015
Hill-Rom Holdings, Inc.	United States	N. America	Healthcare	Ba2 stable	Baa3 RUR-D	9/22/2015
Teck Resources Limited	Canada	N. America	Metals & Mining	Ba1 negative	Baa3 negative	9/14/2015
Voith GmbH	Germany	EMEA	Manufacturing	Ba1 stable	Baa3 RUR-D	9/7/2015
Companhia de San Bas do Estado Sao Paolo	Brazil	LatAm	Utility	Ba1 negative	Baa3 negative	8/28/2015
Golden Eagle Retail Group Ltd.	Cayman Islands	APAC	Retail	Ba1 stable	Baa3 negative	8/26/2015
Graham Holdings Co.	United States	N. America	Services	Ba1 stable	Baa3 RUR-D	6/24/2015
Mitsui O.S.K. Lines Ltd.	Japan	APAC	Shipping	Ba1 stable	Baa3 negative	6/16/2015
Family Dollar Stores, Inc.	United States	N. America	Retail	Ba2 no outlook	Baa3 RUR-D	6/12/2015
Centrais Eletricas Brasileiras SA-Eletronbras	Brazil	LatAm	Utility	Ba1 RUR-D	Baa3 RUR-D	5/21/2015
Energizer Holdings, Inc.	United States	N. America	Consumer Products	Ba1 stable	Baa3 negative	5/5/2015
Petroleum Co. of Trinidad and Tobago (Petrotrin)	Trinidad	LatAm	Energy	Ba1 negative	Baa3 stable	5/1/2015
Kinross Gold Corporation	Canada	N. America	Metals & Mining	Ba1 negative	Baa3 negative	3/16/2015
DCP Midstream LLC	United States	N. America	Energy	Ba2 negative	Baa3 RUR-D	3/4/2015
DCP Midstream Operating	United States	N. America	Energy	Ba1 negative	Baa3 negative	3/4/2015
Rosneft International Holdings Limited	B.V.I.	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
Atomenergoprom, JSC	Russia	EMEA	Utility	Ba1 negative	Baa3 RUR-D	2/25/2015
Federal Passenger Company OJSC	Russia	EMEA	Transp. Svcs.	Ba1 RUR-D	Baa3 RUR-D	2/25/2015
FGC UES, JSC	Russia	EMEA	Utility	Ba1 negative	Baa3 RUR-D	2/25/2015
Gazprom Neft JSC	Russia	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
MegaFon OJSC	Russia	EMEA	Telecom	Ba1 negative	Baa3 RUR-D	2/25/2015
Mobile TeleSystems OJSC	Russia	EMEA	Telecom	Ba1 RUR-D	Baa3 RUR-D	2/25/2015
NLMK	Russia	EMEA	Metals & Mining	Ba1 negative	Baa3 RUR-D	2/25/2015
OAO LUKOIL	Russia	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
OAO Novatek	Russia	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
OJSC Gazprom	Russia	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
OJSC MMC Norilsk Nickel	Russia	EMEA	Metals & Mining	Ba1 negative	Baa3 RUR-D	2/25/2015
OJSC Oil Company Rosneft	Russia	EMEA	Energy	Ba1 negative	Baa3 RUR-D	2/25/2015
OJSC PhosAgro	Russia	EMEA	Chemicals	Ba1 negative	Baa3 RUR-D	2/25/2015
OJSC Uralkali	Russia	EMEA	Chemicals	Ba1 negative	Baa3 RUR-D	2/25/2015
Russian Railways Joint Stock Company	Russia	EMEA	Transp. Svcs.	Ba1 RUR-D	Baa3 RUR-D	2/25/2015

Issuer	Country	Region	Sector	To	From	Date
Transocean Inc.	United States	N. America	Energy	Ba1 stable	Baa3 negative	2/25/2015
Petroleo Brasileiro S.A. - PETROBRAS	Brazil	Latam	Energy	Ba2 RUR-D	Baa3 RUR-D	2/24/2015
Svyazinvestneftekhim OAO	Russia	EMEA	Investment Mgmt.	Ba2 RUR-D	Baa3 RUR-D	2/22/2015
Volcan Compania Minera S.A.A. y Subsidiarias	Peru	Latam	Metals & Mining	Ba1 stable	Baa3 stable	2/5/2015
Safeway Inc.	United States	N. America	Retail	B1/Withdrawn	Baa3 RUR-D	1/29/2015
Tatneft OAO	Russia	EMEA	Energy	Ba1 RUR-D	Baa3 RUR-D	1/22/2015
Tesco Plc	United Kingdom	EMEA	Retail	Ba1 stable	Baa3 RUR-D	1/8/2015

## Appendix 4 - Actual Rising Stars

Issuer	Country	Region	Sector	To	From	Date
Delta Air Lines, Inc.	United States	N. America	Transportation	Baa2 stable	Ba2 positive	2/11/2016
Spirit Aerosystems, Inc.	United States	N. America	Aircraft & Aerospace	Baa3 stable	Ba2 stable	3/4/2016
Renault S.A.	France	EMEA	Auto	Baa3 stable	Ba1 positive	2/18/2016
Qantas Airways Ltd.	Australia	APAC	Transportation	Baa3 stable	Ba1 positive	2/29/2016
Fresenius SE & Co. KGaA	Germany	EMEA	Healthcare	Baa3 stable	Ba1 stable	11/16/2015
Activision Blizzard, Inc.	United States	N. America	Leisure & Entertainment	Baa3 stable	Ba1 positive	11/3/2015
Fibria Cellulose S.A.	Brazil	Latin America	Forest Products	Baa3 stable	Ba1 positive	11/2/2015
Brinker International, Inc.,	United States	N. America	Restaurants	Baa3 stable	Ba1 RUR-U	8/25/2015
Signet UK Finance plc	United Kingdom	EMEA	Retail	Baa3 stable	Ba1 RUR-U	8/17/2015
Lafarge SA	France	EMEA	Manufacturing	Baa2 stable	Ba1 RUR-U	8/10/2015
Turkcell İletişim Hizmetleri A.S.	United States	N. America	Consumer Products	Baa3 negative	B2 RUR-U	7/2/2015
Dillard's Inc.	United States	N. America	Retail	Baa3 stable	Ba1 positive	5/27/2015
Cimarex Energy	United States	N. America	Energy	Baa3 stable	Ba1 positive	5/20/2015
Steinhoff Int'l. Holdings	S. Africa	EMEA	Retail	Baa3 stable	Ba1 RUR-U	5/2/2015
Regency Energy Partners LP	United States	N. America	Energy	Baa3 stable	Ba3 RUR-U	5/1/2015
Southern Star Central Corp.	United States	N. America	Energy	Baa3 stable	Ba1 positive	5/1/2015
Brenntag AG	Germany	EMEA	Whlsl Dstrbtn	Baa3 stable	Ba1 positive	3/25/2015
Energias de Portugal, S.A.	Portugal	EMEA	Utility	Baa3 stable	Ba1 positive	2/13/2015
Hidroelectrica del Cantabrico, S.A.	Spain	EMEA	Utility	Baa3 stable	Ba1 positive	2/13/2015
Williams Partners L.P. (formerly Access Midstream Partners, L.P.)	United States	N. America	Energy	Baa2 stable	Ba1 RUR-U	1/30/2015
Rockwood Specialties Group, Inc.	United States	N. America	Chemicals	Baa3 stable	Ba1 RUR-U	1/14/2015

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REPORT NUMBER 1023737

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