

## WEEKLY MARKET OUTLOOK

Moody's Analytics Research

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## VIX, EDF and National Activity Index Go Far at Explaining the High-Yield Spread

[Credit Markets Review and Outlook](#) by John Lonski

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### [The Week Ahead](#)

We preview economic reports and forecasts from the US, UK/Europe, and Asia/Pacific regions.

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### [The Long View](#)

Full updated stories and key credit market metrics: Privately-held high-yield (and, thus, financially vulnerable) companies often are owned by financially strong private-equity investors.

Credit Spreads	<a href="#">Investment Grade</a> : We see year-end 2019's average investment grade bond spread above its recent 122 basis points. <a href="#">High Yield</a> : Compared with a recent 432 bp, the high-yield spread may approximate 480 bp by year-end 2019.
Defaults	<a href="#">US HY default rate</a> : Moody's Investors Service's Default Report has the U.S.' trailing 12-month high-yield default rate rising from September 2019's actual 3.2% to a baseline estimate of 3.7% for September 2020.
Issuance	<a href="#">For 2018's</a> US\$-denominated corporate bonds, IG bond issuance sank by 15.4% to \$1.276 trillion, while high-yield bond issuance plummeted by 38.8% to \$277 billion for high-yield bond issuance's worst calendar year since 2011's \$274 billion. <a href="#">In 2019</a> , US\$-denominated corporate bond issuance is expected to rise by 2.9% for IG to \$1.313 trillion, while high-yield supply grows by 35.5% to \$376 billion. The very low base of 2018 now lends an upward bias to the yearly increases of 2019's high-yield bond offerings.

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## Credit Markets Review and Outlook

By John Lonski, Chief Economist, Moody's Capital Markets Research, Inc.

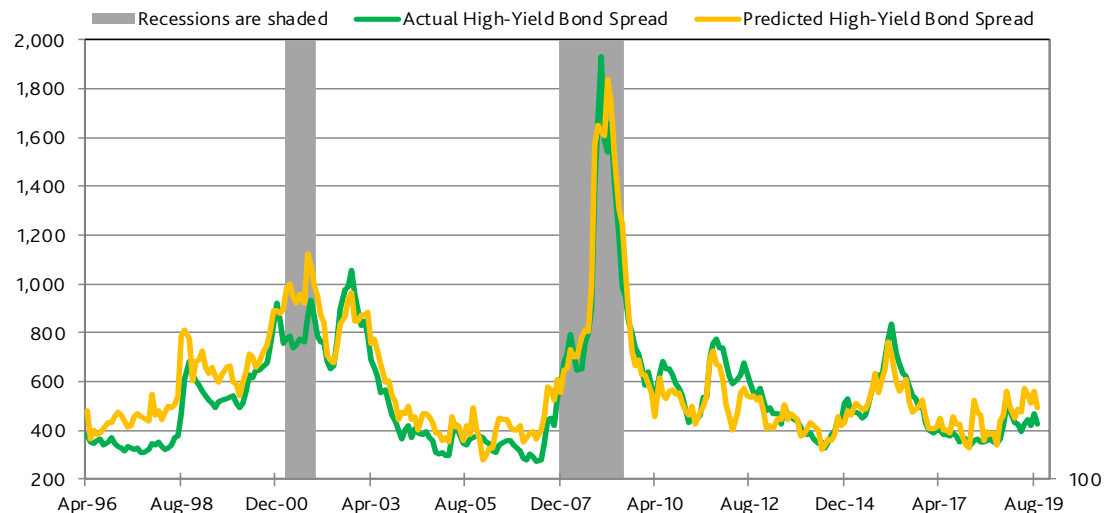
### VIX, EDF and National Activity Index Go Far at Explaining the High-Yield Spread

There is no one way of statistically explaining the bond yield spreads of high-yield corporate bonds. However, one of the better approaches employs a multi-variable regression model and generates a highly significant adjusted r-square statistic of 0.89.

More specifically, the model explains the month-long average of a composite high-yield bond spread in terms of (i) Moody's Analytics' average high-yield expected default frequency metric, (ii) the difference between the latest high-yield EDF and its value of three months earlier, (iii) the VIX, and (iv) the Chicago Fed national activity index's average of the previous three months.

The model now generates an estimated midpoint of 475 basis points for the composite high-yield bond spread. By contrast, the actual high-yield bond spread closed at 432 bp on October 16, which left its October-to-date average at 458 bp.

**Figure 1: Predicted High-Yield Bond Spread Tops Actual Spread by 71 bp, on Average, During 12-months-ended September 2019**  
in basis points (bp)  
source: Moody's Analytics



The predicted spread topped the actual high-yield spread in each of the 12-months-ended September 2019 by 71 basis points, on average. The latter brings attention to how the predicted spread led the actual spread in each of the final 12 months of 2002-2007's business cycle upturn by a wider 99 bp, on average.

During the span just prior to the Great Recession, the actual high-yield bond spread averaged an exceptionally thin 281 bp during 2007's second quarter that was much narrower than the predicted spread's average midpoint of 386 bp. For purposes of comparison, third-quarter 2019 showed a closer correspondence between the actual high-yield bond spread of 440 bp and the predicted midpoint of 523 bp.

The high-yield bond spread's correlations with the explanatory variables are 0.75 with the average high-yield EDF, 0.76 with the combination of the average high-yield EDF and its three-month difference, 0.82 with the VIX and -0.82 with the three-month average of the Chicago Fed's NAI.

On a stand-alone, or isolated basis, the EDF and its three-month difference and the NAI now supply similar estimates of 500 bp to 525 bp for the high-yield bond spread. However, the recent well below trend VIX of 14.0 points favors a high-yield bond spread of 410 bp that is considerably less than its recent 432 bp.

## Credit Markets Review and Outlook

**Why the Chicago Fed's National Activity Index?**

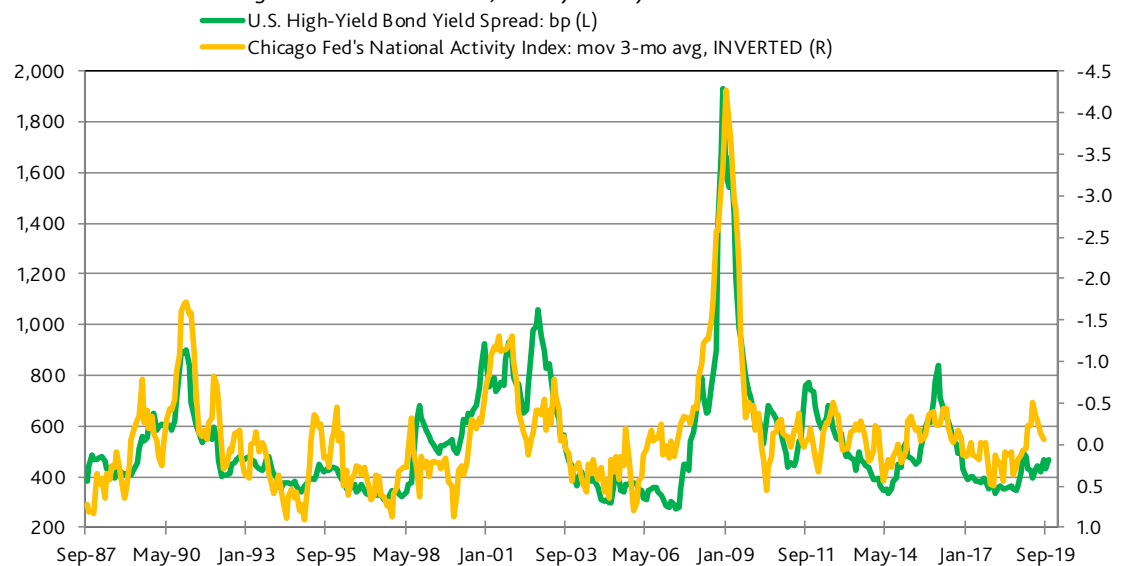
Of the many readily available macroeconomic variables that might explain the high-yield bond spread, the moving three-month average of the Chicago Fed's NAI shows the strongest correlation of  $-0.82$  with the high-yield bond spread.

Regarding other macroeconomic variables, the high-yield bond spread shows correlations of  $-0.70$  with the yearly growth of quarterly real GDP,  $-0.60$  with the quarter-to-quarter annualized percent change of real GDP,  $0.30$  with the unemployment rate,  $0.67$  with the yearly change of the unemployment rate, and  $-0.78$  with the three-month percent change of private-sector payrolls. The latter brings attention to the comparatively high  $0.85$  correlation between the NAI's three-month average and private-sector payrolls' percent change over the last three months.

The NAI provides valuable insight regarding both the underlying quality of business activity and the risk of persistently rapid price inflation. On the inflation front, the Chicago Fed notes that a rising risk of an accelerating rate of consumer price inflation has been associated with a moving three-month average for the NAI of at least  $0.70$  points. Thus, the risks of a fast-rising rate of price inflation have been well contained since December 2005 and January 2006, or when the NAI's moving three-month average was last above  $0.70$  points. For the current business cycle upturn, the top reading for the NAI's moving three-month average has been the  $0.55$  points of the span-ended May 2010. However, because the latter was less than two years into an economic recovery, it fell considerably short of constituting a meaningful threat to price stability. Nevertheless, the 10-year Treasury yield averaged what now seems like a stratospheric  $3.76\%$  during 2010's second quarter.

**Figure 2: Chicago Fed's 85-variable National Activity Index (INVERTED) Favors a 510 bp Midpoint for High-Yield Bond Spread**

*sources: Chicago Federal Reserve Bank, Moody's Analytics*

**Milder Swings in Business Activity Boost Equity Valuations**

More specifically, the NAI's moving three-month average has exceeded  $0.70$  in merely 15, or  $3.6\%$ , of the 416 months since year-end 1984. During this still unfinished span, the metric peaked at the  $0.90$  points of December 1994, which coincided with a  $7.84\%$  average for the 10-year Treasury yield, which remains its highest calendar-quarter average of the past 28 years.

At the other extreme, the NAI's moving three-month average was less than a recessionary and disinflationary  $-0.70$  in 43, or  $10.3\%$ , of the months since year-end 1984, wherein the metric bottomed at January 2009's record low  $-4.26$  points.

In stark contrast, the NAI's moving three-month average surpassed  $0.70$  in 64, or  $35.6\%$ , of the 180 months covering 1970 through 1984, wherein the macroeconomic barometer set a record high at April 1978's  $2.08$  points. At the lower end of the business activity spectrum, 39, or  $21.7\%$ , of the 1970-1984 span overlapped a less than  $-0.70$  point moving three-month average for the NAI.

## Credit Markets Review and Outlook

The 15-years ended 1984 were marked by extremes according to how 103, or 57.2%, of the months during 1970-1984 were joined by a moving three-month average for the NAI that was either less than - 0.70 or above 0.70. To the contrary, only 13.9% of the months since year-end 1984 have coincided with extreme readings for the NAI's three-month average.

The macroeconomic volatility of 1970-1984 took its toll on the equity market according to how the span's 4.0% average annualized increase by the S&P 500 trailed the comparably measured increases of 9.9% for corporate gross value added (a proxy for net revenues) and 8.6% for core pretax profits. Since the end of 1984, the S&P 500's 8.7% average annualized advance has outpaced the comparably measured growth rates of 4.7% for corporate gross value added and 5.4% for core pretax profits.

### Interest Rates Are Critical to the Valuation of Equities

The different directions taken by interest rates help to explain the equity market's radically different responses to net revenues and profits. Whether or not equities are under- or over-valued very much depends on current and expected interest rates.

After soaring from 1969's 6.67% to 1984's 12.44%, the 10-year Treasury yield's 12-month average has since plunged to the 2.45% of the span-ended September 2019. Similarly, after advancing from 1969's 7.76% to 1984's 13.84%, Moody's long-term Baa industrial company bond yield has since plummeted to the 4.86% of the 12-months-ended September 2019.

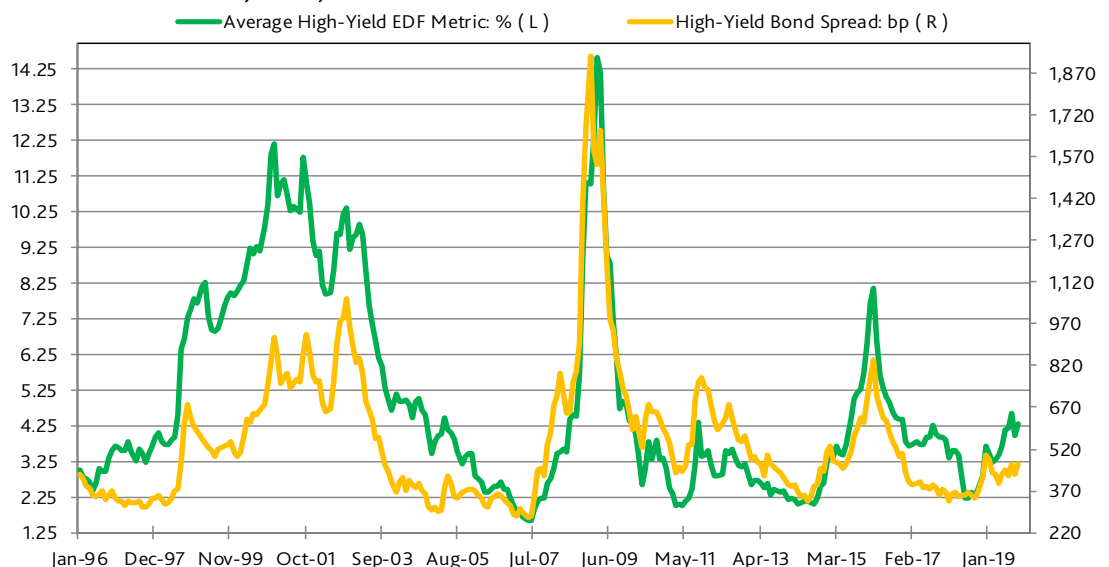
### The EDF and High-Yield Spreads

Moody's Analytics estimates EDF metrics for publicly-held firms. For any issuer, the EDF, or the probability of default within one year, will be greater, the lower is the issuer's market value of net worth and the higher is the volatility of the market value of the issuer's business assets. If debt outruns the firm's market value, the market value of net worth declines.

Moody's Investors Service's one-year high-yield default rate for U.S. issuers has been highly correlated with the average one-year EDF for eligible North American high-yield issuers of nine to 12 months earlier. For example, the high-yield default rate's correlations are 0.88 with the high-yield EDF of nine months earlier and 0.79 with the high-yield EDF of 12 months earlier.

Since year-end 2009, the high-yield EDF's month-long average peaked at the 7.99% of January 2016. Immediately thereafter, the high-yield bond spread set its post 2009 high at February 2016's 839 bp. Compared to January 2016's 3.34%, the high-yield default rate reached 5.73% by October 2016 (or nine months later) and 5.87% by January 2017, where the latter remains the highest default rate since June 2010's 6.57%.

**Figure 3: Average High-Yield EDF Metric Warns of a Wider Than 500 Basis Points (bp) High-Yield Bond Spread**  
source: Moody's Analytics



## Credit Markets Review and Outlook

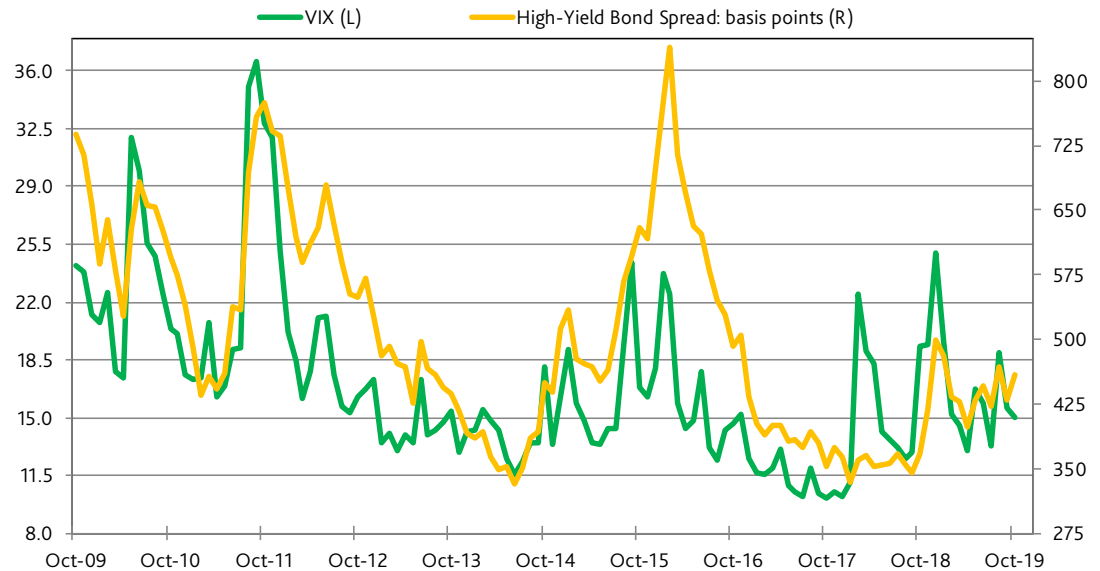
**VIX Shows High-Yield Cannot be Divorced from Equity Risk**

The strong correlation of 0.82 between the month-long averages of the high-yield bond spread and the VIX show that earnings risk looms very large in the valuation of high-yield bonds and equities. It is worth mentioning that the market value of U.S. common stock surged higher by 31.6% annualized, on average, from September 1998 through March 2000, both the high-yield bond spread and the VIX recorded well above-trend averages of 548 bp and 25.1 points, respectively. By contrast, during the five-years-ended September 1998, the averages were 377 bp for the high-yield bond spread and 17.3 points for the VIX. Subpar core pretax profits, a renewed upswing by interest rates that began in early 1999, and narrowness of 1998-2000's equity market rally explain why high-yield and the VIX diverged by so much from breathtaking rallies staged by the broad market indices.

Lately, the high-yield bond spread has been comparatively steady amid sharp upswings by the VIX. August 2019's 19.0-point average for the VIX was joined by a 468 bp high-yield bond spread that was under the 521 bp predicted by the VIX. In December 2018, the VIX soared to 25.0 points, yet the 499 bp average of the high-yield bond spread was substantially thinner than the 675 bp typically associated with a 25.0-point VIX. Similarly, notwithstanding February 2018's well above average VIX of 22.5 points, the high-yield bond spread averaged a well below trend 361 bp. During the past several years, the high-yield bond market has correctly detected undue pessimism on the equity front.

**Figure 4: Both the High-Yield Bond Spread and the VIX Are Now Less than Their Post-1989 Medians of 469 bp and 17.4 points, Respectively**

*sources: CBOE, Moody's Analytics*



## The Week Ahead – U.S., Europe, Asia-Pacific

### THE U.S.

By Ryan Sweet of Moody's Analytics

### Disappointment but Not a Disaster

U.S. retail sales unexpectedly fell in September. A number of temporary factors, though difficult to quantify, could have contributed to the drop. We are not overly concerned about the weakness in retail sales, since the fundamentals for spending remain solid, with the labor market tight, wage growth decent, interest rates low, wealth rising, and household debt burdens low.

Nominal retail sales dropped 0.3% in September, worse than our below-consensus forecast for a 0.1% gain. Control retail sales, or total sales excluding gasoline, autos, building materials and food services, were unchanged in September, and there were downward revisions to prior months. Weakness was broad-based, but there was a drop in nonstore retail sales, which is unusual. This could be due to seasonal adjustment issues surrounding Apple's new iPhones, which are normally launched in September. Because this has been the norm for several years, the seasonal adjustment factor now is likely capturing it and putting some downward pressure on sales.

Weather could have been an issue in September because of Hurricane Dorian, but this is difficult to quantify. Also, the UAW strike may have been an additional small weight on sales. Even adjusting for these factors, our gut is that September retail sales would still have been soft.

August control retail sales and revisions to prior months cut into our high-frequency GDP model's estimate of real consumer spending this quarter, putting it at 2.6% at an annualized rate. The decline in retail sales at building material stores lowered our estimate of third-quarter real residential investment but not enough to move the needle much on third-quarter GDP growth.

Nominal business inventories were unchanged in August, compared with our forecast for a 0.1% gain and the consensus for a 0.2% increase. The new data have the inventory build in the third quarter tracking \$45 billion at an annualized rate, lighter than in the prior three months. Inventories will subtract around 0.5 percentage point from third-quarter GDP growth.

With August business inventories, we have all the inputs needed for monthly GDP. Our estimate of real monthly GDP slipped 0.25% between July and August. This is the second decline in the past three months. The good news is that the decline in August comes on the heels of a 0.51% gain in July. Real monthly GDP was up 0.9% annualized over the prior three months in August, compared with the 2% gain in July and 2.9% gain in June. GDP was up 1.8% annualized over the prior six months in August, a touch better than that seen in July. On a year-ago basis, monthly GDP was up 1.8% in August.

Elsewhere, there are reports that UAW and GM have reached a tentative deal that could end the month-long strike. The strike lasted long enough to have an impact on October employment. Also, the strike contributed to a decline in industrial production in September.

#### Next week

The economic calendar is light next week. September new- and existing-home sales will be released along with durable goods orders.

We will publish our forecasts for next week's data on Monday on [Economy.com](http://Economy.com).

## EUROPE

By Ross Cioffi of Moody's Analytics

## ECB Unlikely to Add More Stimulus Now

After such a full week, the European economic calendar will be much lighter in the days ahead. There won't be any major releases the first three days of next week. On Thursday, however, we'll get Spanish unemployment data for the third quarter, and there will be the European Central Bank's monetary policy meeting. On Friday, there will be the September jobs seekers data for France.

Spain and France have been performing well this year, especially when compared to Germany, which has taken a beating from the combined effects of Brexit and the trade war. Germany is particularly exposed to trade through its manufacturing sector, whereas France and Spain are much less exposed. Each trades heavily with Germany and other euro zone partners, so eventually the effects from a German slowdown will bleed into the rest of the single currency area. There aren't strong signs that this has happened yet. Retail sales, wage and employment numbers have shown that the domestic economies of France, Spain and others have kept pace this year. Of course, the euro zone economy is not booming. Rather, domestic demand, specifically as a result of a growing services sector, has kept output positive in the currency area. However, we expect unemployment numbers to have remained relatively stable in the third quarter. Until uncertainty and trade flows start improving, we will likely start to see labour markets lose momentum in the euro area. Flash composite PMI's have already pointed to as much. We forecast that the Spanish unemployment rate will fall to 13.6% in the third quarter whereas the number of French job seekers will fall slightly from 3.37 million to 3.35 million.

We aren't expecting much from the ECB on monetary policy next week. We expect all three major policy rates to remain unchanged: the deposit rate at -0.5%, the main refinancing rate target at 0% and the marginal lending rate at 0.25%. This is because last month's meeting brought about an aggressive policy response, with a further decrease in the deposit rate, from -0.4% to -0.5%, and an announced return to net asset purchases starting November 1. The ECB furthermore committed itself to bond purchases until inflation in the currency area is solidly around target, and will adopt a tiered reserve system, which should help mitigate the costs to commercial banks of negative deposit rates. The policies signaled that expansionary policy will be the norm for the foreseeable future. However, with such a strong move merely a month ago, and no significant change in the euro zone economy since, it's unlikely that the board will decide for additional policy measures.

Finally, focus will remain on British politics in the aftermath of the vote the U.K. Parliament will take on Saturday. British and European negotiators in Brussels agreed on an exit deal on Thursday. But the deal will now have to pass judgement in the British parliament. Both the Northern Irish Democratic Unionist Party and the Labour Party have already denounced the deal, so it is hard to imagine how it can pass.

	Key indicators	Units	Moody's Analytics	Last
Thur @ 8:00 a.m.	Spain: Unemployment for Q3	%	13.6	14.0
Thur @ 12:45 p.m.	Euro zone: Monetary Policy for October	%	0.0	0.0
Fri @ 11:00 a.m.	France: Job Seekers for September	mil, SA	3.35	3.37

## ASIA-PACIFIC

By Katrina Ell of Moody's Analytics

**Broad-Based Softening in South Korea as GDP Likely Contracted**

South Korea's GDP likely contracted by 0.4% q/q in the September quarter, following the 1.1% expansion in the June quarter. We expect there was broad-based softening across the economy in the third quarter after the better-than-expected expansion in the prior quarter. Nominal exports were down by an average 12.2% y/y in the third quarter, with semiconductors a sustained weak point. The slowdown in global demand has had a significant impact on Korea's economy, which was already grappling with weakened domestic demand before the trade war created additional weight.

Japan's exports likely contracted again in September, following the 8.2% y/y decline in August. Beyond weakened global demand, an additional weakness to Japan's exports is coming from the dispute with South Korea. Indeed, shipments to South Korea were down by 65.3% y/y in September, a symptom of each side removing the other from preferred trading partner status, alongside various boycotts of their respective goods, particularly on the consumer front. A near-term resolution to the dispute remains elusive, despite both sides holding discussions and keeping the possibility of a resolution open.

	Key indicators	Units	Confidence	Risk	Moody's Analytics	Last
Mon @ 10:50 a.m.	Japan Foreign trade for September	¥ bil	3	↑	-225	-136
Thurs @ 10:00 a.m.	South Korea GDP for Q3	% change	3	↔	-0.4	1.1
Fri @ 8:00 a.m.	South Korea Consumer confidence survey for October	Index	3	↓	95.3	96.9



## The Long View

### Privately-held high-yield (and, thus, financially vulnerable) companies often are owned by financially strong private-equity investors.

By John Lonski, Chief Economist, Moody's Capital Markets Research Group  
October 17, 2019

#### CREDIT SPREADS

As measured by Moody's long-term average corporate bond yield, the recent investment grade corporate bond yield spread of 122 basis points matches its 122-point mean of the two previous economic recoveries. This spread may be no wider than 135 bp by year-end 2019.

The recent high-yield bond spread of 432 bp is thinner than what is suggested by both the accompanying long-term Baa industrial company bond yield spread of 194 bp, but wider than what might be inferred from the recent VIX of 13.7 points.

#### DEFAULTS

September 2019's U.S. high-yield default rate was 3.2%. The high-yield default rate may average 3.4% during 2020's first quarter, according to Moody's Investors Service.

#### US CORPORATE BOND ISSUANCE

Yearlong 2017's US\$-denominated bond issuance rose by 6.8% annually for IG, to \$1.508 trillion and soared by 33.0% to \$453 billion for high yield. Across broad rating categories, 2017's newly rated bank loan programs from high-yield issuers sank by 26.2% to \$72 billion for Baa, advanced by 50.6% to \$319 billion for Ba, soared by 56.0% to \$293 billion for programs graded single B, and increased by 28.1% to \$25.5 billion for new loans rated Caa.

Second-quarter 2018's worldwide offerings of corporate bonds eked out an annual increase of 2.8% for IG but incurred an annual plunge of 20.4% for high-yield, wherein US\$-denominated offerings rose by 1.6% for IG and plummeted by 28.1% for high yield.

Third-quarter 2018's worldwide offerings of corporate bonds showed year-over-year setbacks of 6.0% for IG and 38.7% for high-yield, wherein US\$-denominated offerings plunged by 24.4% for IG and by 37.5% for high yield.

Fourth-quarter 2018's worldwide offerings of corporate bonds incurred annual setbacks of 23.4% for IG and 75.5% for high-yield, wherein US\$-denominated offerings plunged by 26.1% for IG and by 74.1% for high yield.

First-quarter 2019's worldwide offerings of corporate bonds revealed annual setbacks of 0.5% for IG and 3.6% for high-yield, wherein US\$-denominated offerings fell by 3.0% for IG and grew by 7.1% for high yield.

Second-quarter 2019's worldwide offerings of corporate bonds revealed an annual setback of 2.5% for IG and an annual advance of 17.6% for high-yield, wherein US\$-denominated offerings sank by 12.4% for IG and surged by 30.3% for high yield.

During yearlong 2017, worldwide corporate bond offerings increased by 4.1% annually (to \$2.501 trillion) for IG and advanced by 41.5% for high yield (to \$603 billion).

For 2018, worldwide corporate bond offerings sank by 7.2% annually (to \$2.322 trillion) for IG and plummeted by 37.6% for high yield (to \$376 billion). The projected annual percent increases for 2019's worldwide corporate bond offerings are 5.8% for IG and 28.8% for high yield. When stated in U.S. dollars, issuers based outside the U.S. supplied 60% of the investment-grade and 57% of the high-yield bond offerings of 2019's first half.

## The Long View

### US ECONOMIC OUTLOOK

As inferred from the CME Group's Fed Watch Tool, the futures market recently assigned an implied probability of 85% to a cutting of the federal funds rate at the October 30, 2019 meeting of the Federal Open Market Committee. In view of the underutilization of the world's productive resources, low inflation should help to rein in Treasury bond yields. As long as the global economy operates below trend, the 10-year Treasury yield may not remain above 2.00% for long. A fundamentally excessive climb by Treasury bond yields and a pronounced slowing by expenditures in dynamic emerging market countries are among the biggest threats to the adequacy of economic growth and credit spreads.

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### EUROPE

By Ross Cioffi of Moody's Analytics  
October 17, 2019

#### UNITED KINGDOM

The Brexit summit in Brussels had a rocky start Thursday, but the good news is that European and British negotiators reached agreement on a deal. The morning started out with the Democratic Unionist Party—the Northern Irish party supporting the Conservative government in the U.K. parliament—opposing the deal that the government had brought to the table in Brussels. The DUP is deeply against any proposal that would treat Northern Ireland differently from the rest of the U.K., and the current deal cannot promise it won't.

Boris Johnson's deal would keep Northern Ireland in the EU single market for a four-year transition period. This would erect two trade borders: A customs border between Northern Ireland and the Republic of Ireland, and a regulatory border at major ports on the Irish Sea. During the transition period, Northern Ireland would have to follow EU regulations on agricultural and industrial goods, but it would not have to follow European social, environmental and labour standards, a point which the Labour Party has latched onto as a reason to reject the deal.

However, the agreement falls short of resolving the Irish problem, because after the four-year transition period the dilemma will just reappear. Northern Ireland will have to either decouple from the U.K. to prevent the border with the Republic of Ireland from hardening or keep its current place in the U.K. and stray from European standards, requiring an even more clear-cut border. To prevent a physical border the region needs to remain aligned to the EU's regulations and stay inside the same customs territory. Johnson claims that cutting-edge technology could eliminate the need for a physical border, but there is no proof a system like this could do the job.

The Benn Act requires Johnson to send a letter to the EU asking for another Brexit delay if no deal is reached by October 19. Although agreement was reached today, we are not celebrating yet. The U.K. and European parliaments still have to vote on it. We aren't expecting much resistance in Europe, but we hold out less hope that the deal will survive the deeply divided British parliament. Labour and the DUP have already come out against it, and unless the DUP has a change of heart—which doesn't seem likely—there won't be enough votes for even a majority.

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### ASIA PACIFIC

By Katrina Ell of Moody's Analytics  
October 17, 2019

#### TAIWAN

Taiwan's economy is in a downswing. GDP growth is forecast at 1.8% in 2019 and 1.9% in 2020, following from 2.6% in 2018. Taiwan's large export exposure, with heavy dependence on electronics, and China are behind the cyclical downswing. Longer-term challenges, including diplomatic isolation due to the sensitive relationship with China along with the aging population, mean Taiwan's prospects are not upbeat. The presidential election in January could have important implications for the relationship with China.

## The Long View

### Good barometer

Taiwan's exports are a good barometer of Asia's production cycle, particularly for tech products because of their outsize exposure. Exports surprised on the downside in September and fell 4.6% y/y after the 2.6% gain in August. The slump was led by a 17.1% y/y plunge in base metals, while machinery fell 16.6% and plastics and rubber were down 16.3%.

Exports of tech products were up 2.4%, while shipments of information and technology added 18.5%. The improvement in the tech category is more related to base effects than to stronger consumer demand.

The export country breakdown shows weakness across the major markets. Exports to China and Hong Kong declined 5.5% y/y in September, while exports to Europe were down 13.2% and to ASEAN were down 0.6%. Shipments to the U.S. rose 8.6%, and they were up 1.5% to Japan.

### China, China, China

Taiwan's relationship with China is deeply sensitive yet critical to its economic outlook. China is Taiwan's largest trading partner. If Taiwan's dependence on China rises further, it has little clout to avoid the mainland's desire to reunify. On the other hand, if Taiwan aggressively pursues independence, China could retaliate by leaving it out of regional supply chains and restricting access to its own large market.

Some Taiwanese manufacturers doing business in China have moved operations back to Taiwan in recent years. Trade data show that Taiwan's businesses will bring back around US\$27 billion in investment from the mainland this calendar year. The reshoring trend was driven by several factors such as reducing exposure to the trade war and the volatile political relationship between Taipei and Beijing.

Taiwanese businesses saw the mainland as an attractive alternative manufacturing destination in the 1980s and 1990s due to lower operating costs and better economies of scale. This hollowed out Taiwan's local manufacturing sector and contributed to stagnating wage growth.

In July, Beijing banned individual Chinese citizens from travelling to the island; China had been Taiwan's largest single source of visitors and they had been a lucrative and growing revenue stream. Last year, an average of 82,000 mainlanders visited Taiwan per month, according to the Ministry of Tourism. China has frequently reduced permits for mainlanders visiting the island—moves that have coincided with a flare-up in tensions.

Taiwan's tourism industry accounts for less than 5% of GDP, but it has been an important source of revenue in the past decade, with flow-on benefits to the broader economy, including increased consumption. It has encouraged growth of the service sector, which remains relatively small but tends to be less volatile than the much larger manufacturing sector.

## Ratings Round-Up

## Ratings Round-Up

## U.S. Downgrades Limited to Speculative-Grade Companies

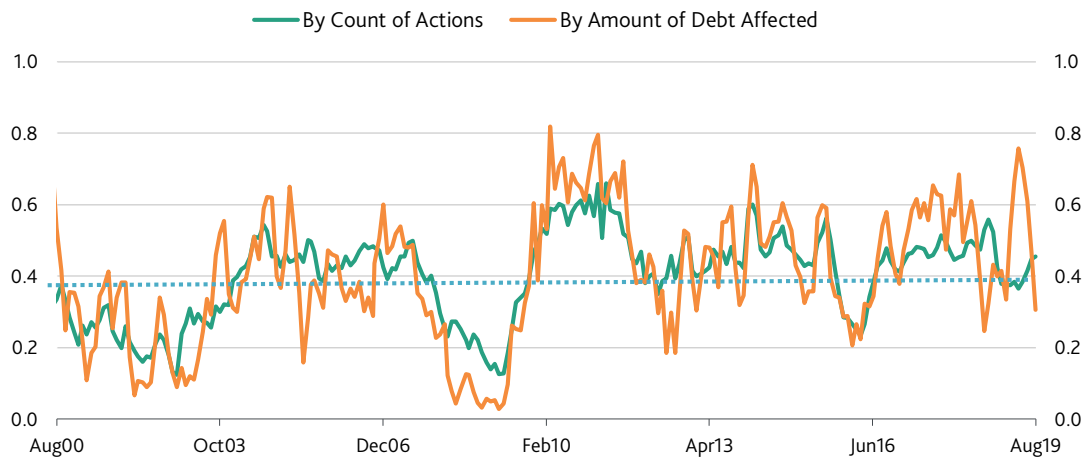
By Michael Ferlez

The industrial sector accounted for all but one of the fifteen U.S. credit rating changes last week. U.S. rating activity remained negative, with downgrades accounting for 53% of total changes. Headlining U.S. rating change activity last week was Equinix Inc. The U.S. telecommunications company saw its corporate family rating and senior unsecured credit rating upgraded to Ba1 from Ba2, affecting \$7.6 billion in debt. On the other hand, downgrades were limited to speculative-grade companies across many different industries which only accounted for 15% of total affected debt. While last week's performance is consistent with a multi-year long trend of negative rating changes activity, it is not suggestive of a weakening in the overall health of the U.S. corporate sector. For the most part, recent downgrades have been confined largely to the speculative-grade companies, which have less of an effect on the broader economy. For example, in the first half of 2019, speculative-grade companies accounted for 90% of total downgrades, but only 28% of affected debt.

The positive trend in European rating activity also continued last week, with upgrades outnumbering downgrades four-to-two for the second straight week. Despite the positive trend, it was the downgrade of BASF that headlined the list of European rating changes for the week. The German chemical company saw its senior unsecured credit rating cut to A2 from A1, affecting \$16 billion in debt. The downgrade reflected Moody's Investors Service's expectation that a number of challenges would cause the firm's operating performance to remain subdued in 2020.

FIGURE 1

## Rating Changes - US Corporate &amp; Financial Institutions: Favorable as % of Total Actions



\* Trailing 3-month average

Source: Moody's

## Ratings Round-Up

FIGURE 2

**Rating Key**

<b>BCF</b>	Bank Credit Facility Rating	<b>MM</b>	Money-Market
<b>CFR</b>	Corporate Family Rating	<b>MTN</b>	MTN Program Rating
<b>CP</b>	Commercial Paper Rating	<b>Notes</b>	Notes
<b>FSR</b>	Bank Financial Strength Rating	<b>PDR</b>	Probability of Default Rating
<b>IFS</b>	Insurance Financial Strength Rating	<b>PS</b>	Preferred Stock Rating
<b>IR</b>	Issuer Rating	<b>SGLR</b>	Speculative-Grade Liquidity Rating
<b>JrSub</b>	Junior Subordinated Rating	<b>SLTD</b>	Short- and Long-Term Deposit Rating
<b>LGD</b>	Loss Given Default Rating	<b>SrSec</b>	Senior Secured Rating
<b>LTCF</b>	Long-Term Corporate Family Rating	<b>SrUnsec</b>	Senior Unsecured Rating
<b>LTD</b>	Long-Term Deposit Rating	<b>SrSub</b>	Senior Subordinated
<b>LTIR</b>	Long-Term Issuer Rating	<b>STD</b>	Short-Term Deposit Rating

## Ratings Round-Up

FIGURE 3

## Rating Changes: Corporate &amp; Financial Institutions – US

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	IG/ SG
10/10/19	BROOKFIELD ASSET MANAGEMENT INC.-TERRAFORM POWER OPERATING LLC	Industrial	SrUnsec	3,000	U	B1	Ba3	SG
10/10/19	ASCENA RETAIL GROUP, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
10/10/19	COOPER-STANDARD HOLDINGS INC.-COOPER-STANDARD AUTOMOTIVE INC.	Industrial	SrUnsec/SrSec /BCF/LTCFR/PDR	800	D	B1	B2	SG
10/10/19	INFOBLOX INC.	Industrial	SrSec/BCF		D	B1	B2	SG
10/10/19	CDRH PARENT, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	B3	Caa2	SG
10/10/19	MEDICAL DEPOT HOLDINGS, INC.	Industrial	PDR		D	Caa2	D	SG
10/11/19	STEEL DYNAMICS, INC.	Industrial	SrUnsec	2,350	U	Ba1	Baa3	SG
10/11/19	DELUXE ENTERTAINMENT SERVICES GROUP, INC.	Industrial	SrSec/BCF /LTCFR/PDR		D	Caa2	C	SG
10/14/19	CBL & ASSOCIATES PROPERTIES, INC.-CBL & ASSOCIATES LIMITED PARTNERSHIP	Industrial	SrUnsec/LTCFR	1,375	D	B1	Caa1	SG
10/14/19	EQUINIX, INC.	Industrial	SrUnsec /LTCFR/PDR	7,635	U	Ba2	Ba1	SG
10/15/19	GARDNER DENVER HOLDINGS, INC.-GARDNER DENVER, INC.	Industrial	SrSec/BCF /LTCFR/PDR		U	Ba3	Ba2	SG
10/15/19	MEDICAL DEPOT HOLDINGS, INC.	Industrial	PDR		U	D	Caa2	SG
10/16/19	BLACKBOARD, INC.	Industrial	LTCFR/PDR		U	Caa1	B3	SG
10/16/19	HUDSON PACIFIC PROPERTIES, INC.	Industrial	SrUnsec/LTIR	1,300	U	Baa3	Baa2	IG
10/16/19	CCF HOLDINGS LLC	Financial	SrSec /SrUnsec/LTCFR	319	D	Caa2	Caa3	SG

Source: Moody's

## Ratings Round-Up

FIGURE 4

## Rating Changes: Corporate &amp; Financial Institutions – Europe

Date	Company	Sector	Rating	Amount (\$ Million)	Up/ Down	Old LTD Rating	New LTD Rating	Old STD Rating	New STD Rating	IG/ SG	Country
10/9/19	BASF GROUP-BASF (SE)	Industrial	SrUnsec /MTN	16,326	D	A1	A2			IG	GERMANY
10/9/19	CAIXA ECONOMICA MONTEPIO GERAL, CAIXA ECONOMICA BA	Financial	LTD /Sub/MTN	166	U	B3	B1			SG	PORTUGAL
10/9/19	GRUPPO CASSA CENTRALE - CREDITO COOPERATIVO ITALIA-CASSA CENTRALE BANCA S.P.A.	Financial	SLTIR		D	Baa3	Ba1	P-3	NP	IG	ITALY
10/11/19	GROUPE CREDIT AGRICOLE- CREDIT AGRICOLE BANK POLSKA S.A.	Financial	LTD		U	Baa1	A3			IG	POLAND
10/11/19	SIG COMBIBLOC GROUP AG	Industrial	SrSec/BCF /LTCFR/PDR		U	Ba3	Ba2			SG	SWITZERLAND
10/14/19	NEPTUNE ENERGY GROUP MIDCO LTD.-NEPTUNE ENERGY BONDSCO PLC	Industrial	SrUnsec	550	U	B2	B1			SG	UNITED KINGDOM

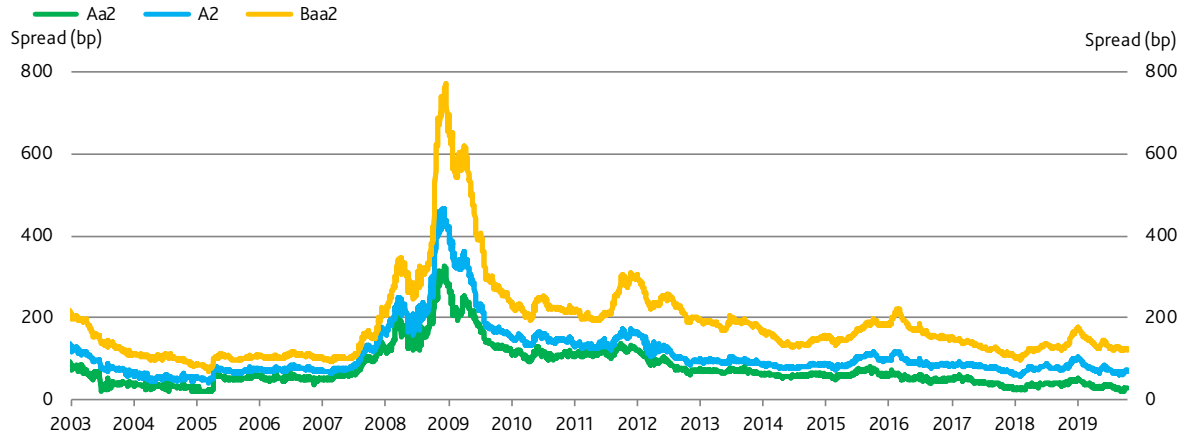
Source: Moody's

Market Data

Market Data

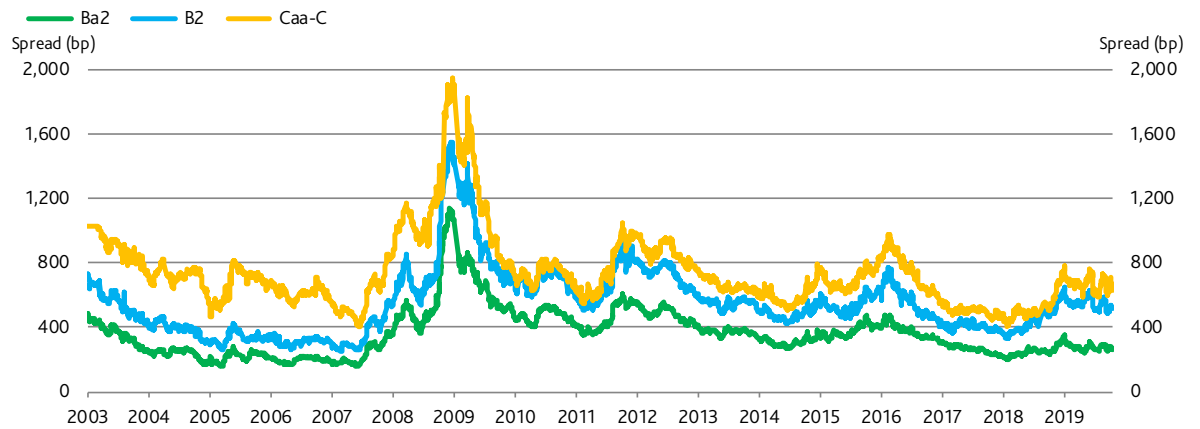
Spreads

Figure 1: 5-Year Median Spreads-Global Data (High Grade)



Source: Moody's

Figure 2: 5-Year Median Spreads-Global Data (High Yield)



Source: Moody's



## Market Data

## CDS Movers

Figure 3. CDS Movers - US (October 9, 2019 – October 16, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer	Oct. 16	Oct. 9	Senior Ratings	
JPMorgan Chase & Co.	A1	A2	A2	
JPMorgan Chase Bank, N.A.	Aa3	A1	Aa2	
Wells Fargo & Company	A2	A3	A2	
American Express Credit Corporation	Aa3	A1	A2	
Johnson & Johnson	Aa2	Aa3	Aaa	
Ford Motor Company	B1	B2	Ba1	
Enterprise Products Operating, LLC	Baa1	Baa2	Baa1	
Altria Group Inc.	Baa2	Baa3	A3	
General Motors Company	Ba2	Ba3	Baa3	
Bank of America, N.A.	A2	A3	Aa2	

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer	Oct. 16	Oct. 9	Senior Ratings	
YRC Worldwide Inc.	Ca	Caa2	Caa1	
Toyota Motor Credit Corporation	A1	Aa3	Aa3	
Microsoft Corporation	Aa3	Aa2	Aaa	
Oracle Corporation	A2	A1	A1	
Exxon Mobil Corporation	A1	Aa3	Aaa	
3M Company	Aa3	Aa2	A1	
Merck & Co., Inc.	A1	Aa3	A1	
Intel Corporation	A3	A2	A1	
Amazon.com, Inc.	A1	Aa3	A3	
Nissan Motor Acceptance Corporation	Ba1	Baa3	A3	

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Oct. 16	Oct. 9	Spread Diff
AutoNation, Inc.	Baa3	444	424	20
HCP, Inc.	Baa1	100	87	13
Qwest Corporation	Ba2	221	214	8
Vornado Realty L.P.	Baa2	89	81	7
Service Properties Trust	Baa3	164	158	6
Welltower Inc.	Baa1	96	92	4
Boston Properties Limited Partnership	Baa1	70	66	4
Noble Energy, Inc.	Baa3	159	155	4
Texas Instruments, Incorporated	A1	95	91	4
EOG Resources, Inc.	A3	70	66	4

CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Oct. 16	Oct. 9	Spread Diff
Frontier Communications Corporation	Caa3	6,669	7,614	-945
Rite Aid Corporation	Caa2	1,520	1,902	-382
Penney (J.C.) Corporation, Inc.	Caa3	2,677	2,968	-291
Nabors Industries Inc.	B1	1,051	1,257	-206
Neiman Marcus Group LTD LLC	Ca	5,318	5,478	-160
AK Steel Corporation	B3	990	1,144	-154
Dean Foods Company	Caa3	2,792	2,928	-137
Diamond Offshore Drilling, Inc.	B3	755	875	-120
K. Hovnanian Enterprises, Inc.	Caa3	1,724	1,834	-110
Realogy Group LLC	B3	812	900	-88

Source: Moody's, CMA

## Market Data

Figure 4. CDS Movers - Europe (October 9, 2019 – October 16, 2019)

CDS Implied Rating Rises		CDS Implied Ratings		
Issuer		Oct. 16	Oct. 9	Senior Ratings
HSBC Holdings plc		A2	Baa1	A2
Standard Chartered PLC		A3	Baa2	A2
BNP Paribas		Aa2	Aa3	Aa3
Lloyds Bank plc		A1	A2	Aa3
NatWest Markets Plc		Baa2	Baa3	Baa2
Intesa Sanpaolo S.p.A.		Baa3	Ba1	Baa1
Nationwide Building Society		A3	Baa1	Aa3
Standard Chartered Bank		Aa2	Aa3	A1
Vodafone Group Plc		Baa1	Baa2	Baa2
NatWest Markets N.V.		Aa2	Aa3	Baa2

CDS Implied Rating Declines		CDS Implied Ratings		
Issuer		Oct. 16	Oct. 9	Senior Ratings
Piraeus Bank S.A.		Ca	Caa2	Caa2
Fortum Oyj		Baa1	A2	Baa2
Banco Bilbao Vizcaya Argentaria, S.A.		A3	A2	A3
Dexia Credit Local		Ba2	Ba1	Baa3
Bayerische Landesbank		A2	A1	Aa3
Alpha Bank AE		Caa2	Caa1	Caa1
Landesbank Baden-Wuerttemberg		A3	A2	Aa3
KBC Group N.V.		Baa1	A3	Baa1
Unione di Banche Italiane S.p.A.		Ba2	Ba1	Baa3
Raiffeisen Bank International AG		Baa3	Baa2	A3

CDS Spread Increases		CDS Spreads		
Issuer	Senior Ratings	Oct. 16	Oct. 9	Spread Diff
PizzaExpress Financing 1 plc	Caa2	11,473	9,435	2,038
Boparan Finance plc	Caa1	2,845	2,720	125
Selecta Group B.V.	Caa1	299	248	52
Vue International Bidco plc	Caa2	263	244	19
Publicis Groupe S.A.	Baa2	74	67	7
Fortum Oyj	Baa2	54	49	5
NXP B.V.	Baa3	142	140	2
Royal Philips N.V.	Baa1	26	24	2
Alliander N.V.	Aa2	48	47	2
Atlas Copco AB	A2	52	50	2

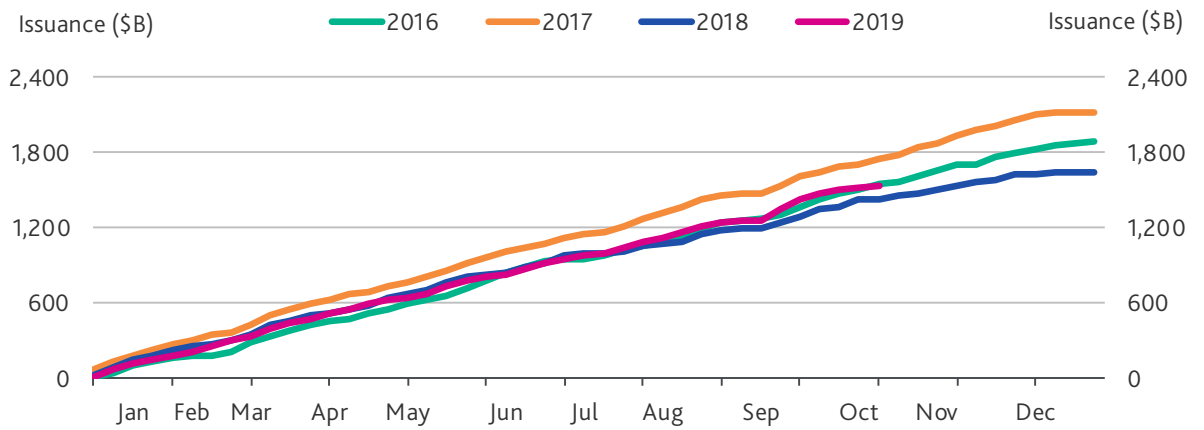
CDS Spread Decreases		CDS Spreads		
Issuer	Senior Ratings	Oct. 16	Oct. 9	Spread Diff
Jaguar Land Rover Automotive Plc	B1	631	766	-135
Novafives S.A.S.	Caa2	731	857	-126
CMA CGM S.A.	Caa1	1,664	1,759	-95
Matalan Finance plc	Caa1	867	954	-87
TUI AG	Ba2	309	363	-54
Casino Guichard-Perrachon SA	B1	601	648	-48
Vedanta Resources Limited	B2	523	567	-44
Iceland Bondco plc	Caa2	570	609	-39
Atlantia S.p.A.	Baa3	204	242	-38
Altice Finco S.A.	Caa1	308	344	-36

Source: Moody's, CMA

Market Data

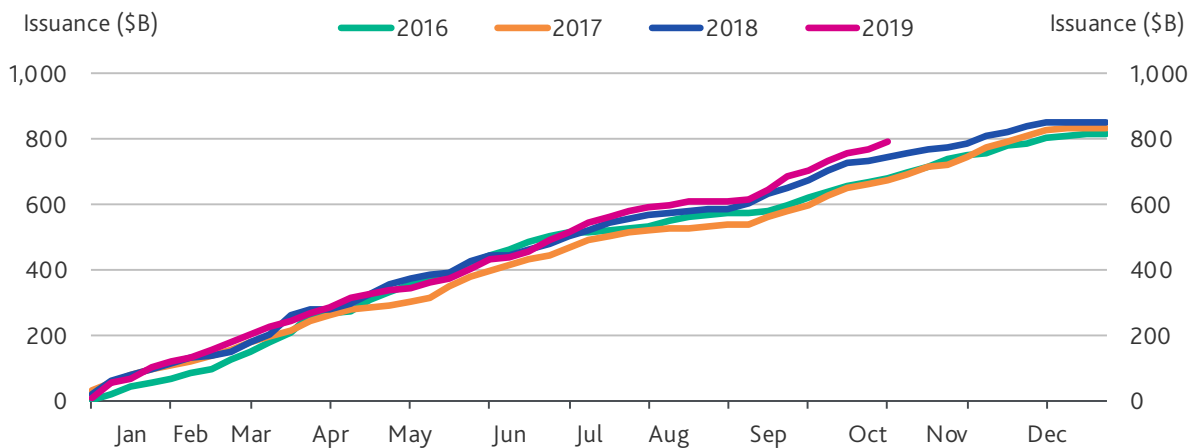
Issuance

Figure 5. Market Cumulative Issuance - Corporate & Financial Institutions: USD Denominated



Source: Moody's / Dealogic

Figure 6. Market Cumulative Issuance - Corporate & Financial Institutions: Euro Denominated



Source: Moody's / Dealogic

## Market Data

Figure 7. Issuance: Corporate &amp; Financial Institutions

	USD Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	12.915	4.735	20.630
Year-to-Date	1,114.959	332.747	1,533.634

	Euro Denominated		
	Investment-Grade	High-Yield	Total*
	Amount \$B	Amount \$B	Amount \$B
Weekly	16.627	2.008	21.061
Year-to-Date	690.325	77.585	791.821

\* Difference represents issuance with pending ratings.

Source: Moody's/ Dealogic

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