Global Credit Outlook 2017

Bracing for change

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OVERVIEW

Bracing for change

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- **The seminal political events of Brexit and the US presidential election caused uncertainty in 2016, but were not enough to destabilize markets for an extended period. We expect that as the effect becomes more actual than theoretical, volatility will be higher in 2017. This should cap return levels well below those of the past year, but still produce attractive returns in a global fixed income context.**

- **The rising tide lifted most boats in 2016. In developed markets, US high yield CCCs led the pack with 24% returns. Among the largest contributors to emerging market spread tightening were commodity dependent countries in recessions, including Russia, Venezuela and Brazil.**

- **The rally in high beta was partly a product of a difficult 2015 and lower quality still trades wide in a historical context. As long as growth remains positive and the hunt for yield is a major flow factor, we believe investors will trail the market if they move to fully conservative positioning considering the premium that exists in higher beta assets.**

- **For US investment grade we believe spreads are at the tighter end of the range, particularly in the higher quality parts of the market, and therefore would advocate an overweight to BBB's. We also believe financials can outperform post-election.**

- **The European credit market will once again take its cue from the actions of the ECB, where we believe 2017 is unlikely to pass without widespread anticipation – or actual – tapering of the pace of QE. With spreads tight and compressed compared to macro indicators, this makes us cautious on European credit, and we look to sell into rallies.**

- **Default rates are either decreasing or remaining low depending on the market, and spreads are less stretched down the credit spectrum. This should set up high yield assets for another year of solid returns despite the potential for short-term flow-related volatility due to interest rates.**

- **Our hesitations from recommending a full on down-in-quality trade stem from the commodity risk associated with the highest yielding assets and increased uncertainty related to the changing political landscape. In a historical context, US CCCs and LatAm corporates look cheap, but at a micro level we believe incremental risks are higher as well. Still, the spread pickup should be enough to produce superior absolute returns even if risk-adjusted results are less impressive.**

- **In Municipals, valuations are attractive since ratios have increased vs. Treasuries, and the asset class has underperformed corporates. However, it is difficult to imagine Municipals rallying in the first year of a Republican presidency.**

- **High quality ABS is trading at tight levels that are consistent with limited risks. Among the wider trading sub-asset classes we believe CLO liabilities look attractive relative to other ABS and even underlying loans. We also see value in private student loan ABS and whole business securitizations.**

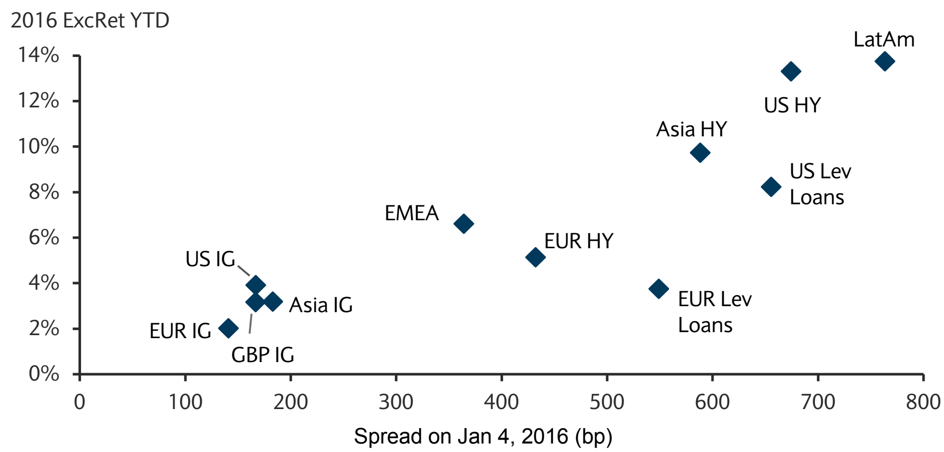
- **We are more cautious on the subprime auto sector. We do not think impairments are on the horizon for even the most junior tranches, but between more loans with lower or no FICO scores, longer loan maturity terms, an uptick in issuance and negative headline risk, spreads do not present a compelling risk/reward.**

Now for the hard part

Most global credit asset classes produced strong returns in 2016 with higher beta posting double-digit gains (Figure 1). The catalyst was declining risk free rates as most central banks either increased or maintained extraordinary monetary policy. For the riskiest parts of credit, these returns were amplified by the commodities rally that represented a material fundamental positive for stressed producers.

FIGURE 1

2016 credit sector excess returns vs. spreads at the beginning of 2016



Note: Spread is OAS for all markets except US and EU Lev Loans (4y discount margins).
Source: Barclays Research

The easy gains are likely now behind us. We still think the outlook for 2017 is relatively constructive, despite expectations for higher volatility (Figures 2). Figure 3 lays out our returns expectations across global credit markets. The trend that emerges is that US returns look set to outperform the rest of the world, with the exception of the relatively small EUR AT1 CoCo space that has been a big underperformer in 2016. This implicit asset allocation recommendation is clearly dependent on the follow-through from the campaign promises of President-elect Trump to deliver fiscal stimulus and growth-inducing tax cuts. Our base case is that a Republican Congress will be supportive and the chance of recession in the US in the next 18 months has decreased. This makes spreads that are just inside of long-term averages fairly attractive, even if risk-free rates increase to some degree. The appreciating dollar is another risk, as it could dampen earnings growth as well as demand for USD fixed income assets.

The downside case outside the US is also centered on politics. While Trump's lack of experience provides uncertainty, in Europe the robust political calendar provides several potential landmines that begin with the Italian referendum this weekend. French elections will take center stage early next year, and then Merkel's campaign for re-election in Germany will usurp headlines. At the same time, the ECB could be tapering, and issues related to Italian and German banks have not been resolved. Another open challenge is the triggering of Article 50 in the UK and negotiations between Britain and the EU. As we went through our annual forecasting exercise, we found that the combination of these factors led us to spend much more time on downside than upside scenarios for European credit. To be fair, we think stable corporate fundamentals should keep spreads from moving materially wider, but we still expect underperformance on a global scale, considering the lack of a goldilocks scenario.

A year ago, it would have been unfathomable to get to the end of this section without mentioning risks related to China, but the market has placed less weight on headlines out of the region after Q1. This has largely been because growth has held up due to accommodative policy. In recent weeks, there have been signs of greater restrictions in terms of keeping money onshore. We think developed markets may be a bit dismissive of risks related to Chinese growth, as commodity prices are at recent highs, but we are sanguine on Chinese USD credit. China is set to become 50% of the Asian corporate market (making it the largest domicile for EM USD corporates), and we expect in-region demand to lead to stable performance. China's commodity demand will be key for many of the large quasi-sovereign EM corporates as well. Despite improved fundamentals, fears about trade tariffs, especially for Mexico, could limit the technical bid for emerging market corporates; therefore, we do not expect the asset class to be able to outperform in the same manner as 2016.

Away from political uncertainty, the most obvious risk to global markets as we enter 2017 is the possibility that one of the key drivers – extraordinary monetary policy – fades and is replaced by fiscal policy that has not been tested. In recent history, volatility has increased when central banks are not in the market. But while the Fed will not be expanding its balance sheet, and will likely hike rates a couple of times, other central banks like the BoE, ECB, and BoJ are still expanding theirs, and are more than making up for the Fed's absence (Figure 4). As mentioned above, the Republican victory in the US elections should make fiscal policy even more supportive and provide a boost to growth that is only partially offset by potential restrictive trade policies. However, at the same time, we think this increases uncertainty with respect to the Fed.

Irrespective of when the monetary stimulus fades, a primary concern for credit investors is whether companies are using these easy conditions to over-lever. In general, we think the evidence is not alarming. Most markets we look at have yields within their bottom quintiles historically, yet the amount outstanding has barely increased over the past two years (Figure 5). Despite some temporary spikes in gross issuance, such as in the European investment grade market after the CSPP began or US Municipals market ahead of elections, net issuance has been very modest.

But there are pockets of the market we are more worried about. The US investment grade market continues to grow at double-digit percentages, and issuance has been used for M&A and share buybacks. In emerging markets where central bank policy has not been as uniformly accommodative, hard currency debt has increased as well in order to fund fiscal deficits and negative free cash flow.

FIGURE 2

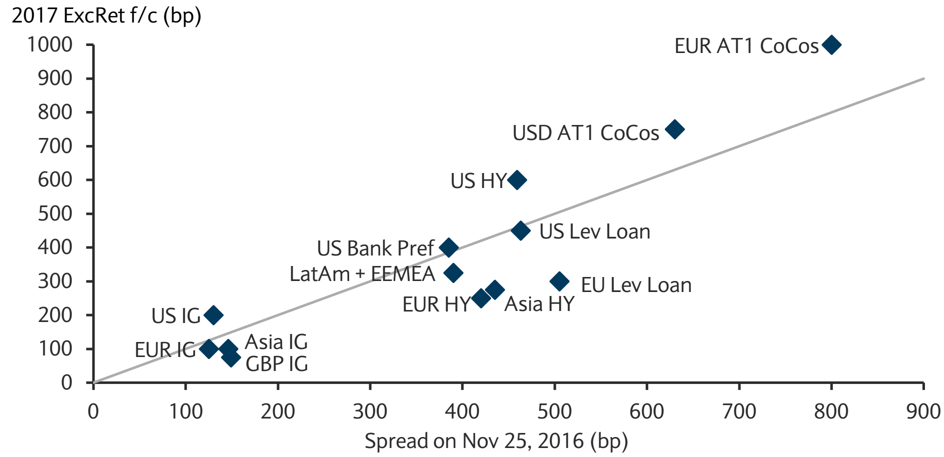
Key market themes and forecasts for 2017

Market	Key theme(s)	Excess return forecast (bp)	Total return forecast (bp)
Developed markets			
US IG	Tax reform and fiscal stimulus, along with higher Treasury yields, should support spreads and push recession risks beyond 2018. Absent a recession, we believe spreads should tighten marginally. Policy uncertainty and macroeconomic risk events abroad, however, could keep volatility elevated, magnifying upside and downside risks to our forecast.	175-225	325-375
EUR IG	We believe that the low in €-IG yields has passed and that the ECB will slow CSPP purchases in 2017. The hand-off to private demand will likely be volatile, and strained, pressuring spreads wider. Further, European credits have little exposure to corporate-positive political developments in the US, but an outsized vulnerability to the busy political calendar in Europe.	75-125	(100)-(50)
GBP IG	The process of triggering Article 50 and ending the CBPS are both likely to inject volatility into £-IG markets next year. Valuations are not appealing on a like-for-like basis and retail funds will fear outflows, given weak Q4 returns. For these reasons, we enter 2017 cautiously.	50-100	50-100
US Bank Preferreds	Strong US bank fundamentals and favorable supply technicals should keep preferred volatility low, although tight starting valuations will limit the extent of any rally. Rates risk will be key: we favor shorter non-call paper, which has lower interest rate duration and trades at a wider spread.	350-450	450-550
European Bank CoCos	Improvements in inflation and growth and less pressure on bank profitability as rates rise should drive CoCo returns to be among the highest in credit. Our optimism is tempered by the potential for a disruptive election outcome in the EU, a flare-up in "story banks," and disappointing macro data. We recommend focusing longs on mid-beta credits and strong structures.	USD: 700-800 EUR: 950-1050	USD: 800-900 EUR: 900-1000
US Municipals	We expect significant policy changes to be implemented next year by the Trump administration, led by tax reform. Muni demand will be affected, but the amount of the impact will depend on the extent of corporate and personal income tax reform. 2017 is likely to be relatively difficult and volatile for munis, though tactical investment opportunities might still be abundant.	100-150	200-250
US Securitized	ABS fundamentals are mixed, as credit card and student loans continue to perform well, while auto and equipment loans are showing signs of weakness. With most consumer ABS spreads at multi-year tights, we favor short-dated floating rate student loans; however, we think there are compelling opportunities in subordinates and more off-the-run sectors.	0-50	100-150
US HY	We believe the higher-beta part of the market is poised for a continuation of the 2016 rally. In our view, expansionary fiscal policy more than offsets the drag of protectionist trade policy. The lower-quality part of the market offers compelling value at current levels, as CCC issuers can benefit from higher inflation and more accommodative primary market conditions.	550-650	700-800
Pan Euro HY ex-fins	Spreads should be marginally wider in 2017 as the market struggles with technicals that will be neutral at best. Other potential negative factors include unresolved macro and political issues in Europe, potential ECB tapering, and rising rates. Stable fundamentals in Europe and some positive knock-on effects from the US should cap spread widening.	200-300	100-200
US Lev Loan	We expect another year of solid performance in 2017. In our view, the higher-beta part of the market should benefit from greater retail demand stemming from rising rates and solid CLO formation. Higher-rated CLO liabilities should have room to tighten.	400-500	500-600
EUR Lev Loan	Loans should outperform in the context of rising risk free rates. We still expect modest spread widening, but strong CLO demand should limit downside risks. Relative value is less compelling for IG CLO tranches after a strong rally in 2016.	250-350	250-350
Emerging market corporates			
LatAm + EEMEA	Returns in 2017 will likely be driven by carry, anchored by faster growth in most EM countries and stable corporate fundamentals. The main risk to this view is the potential for outflows from EM credit funds, which could be triggered by a continued, sharp US Treasury sell-off and/or Trump administration policies that affect EM sentiment and economic prospects worse than expected.	300-350	450-500
Asia IG	Chinese investors' demand for China credit should support spreads and drive performance. However, the rest of Asia is likely to see some weakness amid a pickup in volatility and concerns about EM fund outflows. We recommend buying on such weakness, focusing on India, Indonesia and China.	75-125	200-250
Asia HY	We expect most HY issuers in China, Indonesia, the Philippines and India to see some improvements in fundamentals and be mostly unaffected by weakening EM FX. We see risks in the China property complex, where leverage has ticked up, housing policies are being tightened in some parts of the country, and domestic liquidity is tightening.	250-300	350-400

Source: Barclays Research

FIGURE 3

2017 excess return forecasts versus current spreads

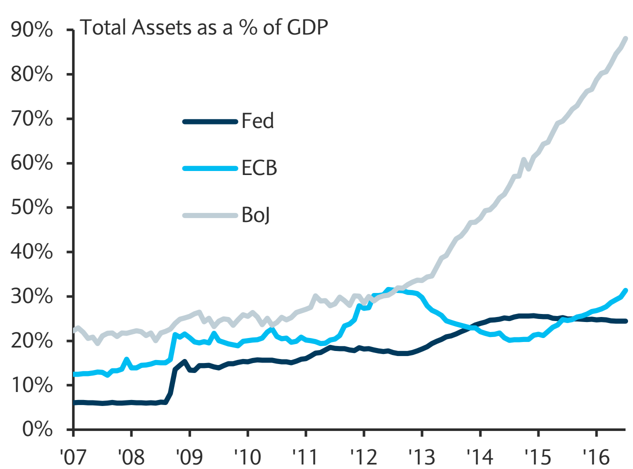


Source: Barclays Research

Generically, the declining growth rate of debt outstanding across credit markets gives us comfort that there is not a bubble intrinsic to our asset class. However, with global GDP growth at low levels, even slight increases in debt mean that deleveraging is nonexistent. We therefore think it is important to dig into fundamentals and examine whether certain sectors have taken advantage of cheap funding to a greater extent. In retrospect, the significant par growth in the amount outstanding for the US energy sector in the immediate aftermath of the credit cycle should have been a signal of future stress. We are now seeing another sector that has witnessed significant issuance, healthcare/pharmaceuticals, come under the microscope. We believe positioning between and within asset classes based on these fundamental trends will be more important in 2017 considering the general spread compression in credit markets in 2016.

FIGURE 4

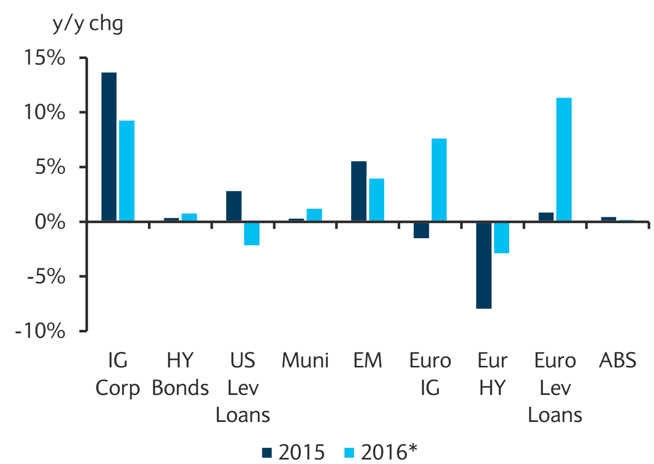
Central bank balance sheets as a % of GDP



Source: Bloomberg, Haver Analytics, Barclays Research

FIGURE 5

Annual growth in amount outstanding by market



Note: * 2016 Data as of November 7. Source: Bloomberg Barclays Indices, S&P LCD, Barclays Research

Supply not likely to be the problem, despite cheap debt

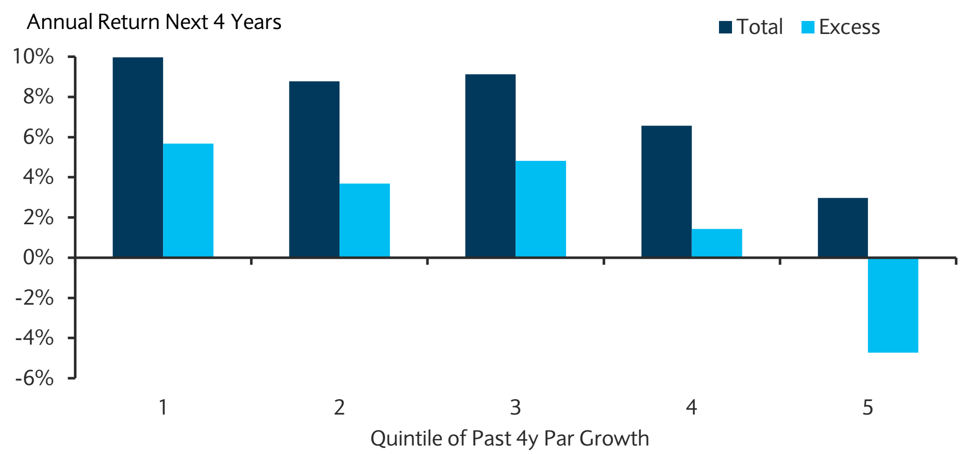
An extended period of inexpensive borrowing suggests that we should consider the risk of a credit market bubble. Indeed, we have found empirical evidence that increased issuance portends future trouble for a sector. As Figure 6 shows, sectors with outsized par growth over an extended period (four years in this example) are typically the poorest performers. As mentioned above, this would have been a good way of spotting the bubble in US high yield energy, although a lead time of four years is a long time to be underweight. Puerto Rico is another great example of excessive issuance from the recent past as its debt stock grew from $43bn to $70bn from 2006 to 2012 without accompanying GDP growth and the commonwealth was forced to miss several debt payments in 2016.

We lean on the evidence in Figure 6 to spot areas to avoid within sub-segments of credit, but by and large do not think excessive supply will be a concern for the global credit market in 2017. Despite the low cost of debt, issuance has not spiked in the past few years in most markets that we cover. In addition, we are not forecasting a significant pickup in 2017.

We believe the lack of net issuance can generally be accounted for by two factors: increased regulation – especially in ABS and leveraged finance – and lack of growth opportunities.

FIGURE 6

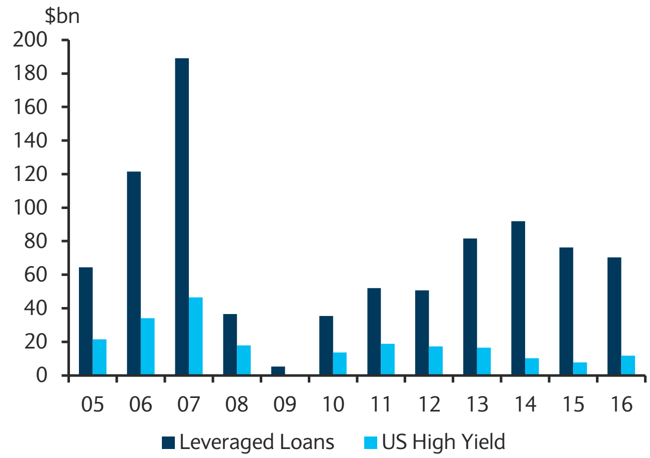
High yield returns based on sector growth



Note: Par growth adjusted for fallen angels, rising stars, and defaults. Four-year look-back on growth and four year forward window for returns. Source: Barclays Research

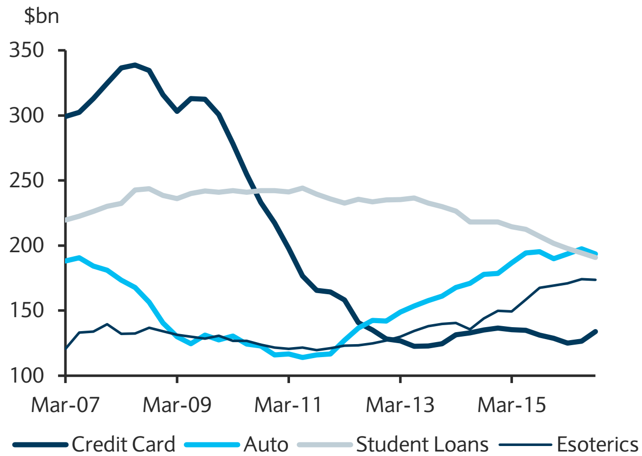
In leveraged finance, lending guidelines have severely limited the ability to do large LBOs in the US (Figure 7) and most banks have operated under similar policies in Europe. Therefore, the pace of issuance is no longer driven by the financial engineering that helped produce the largest LBOs of the mid-2000s. For example, CCC issuance has been stuck at only ~10% of the US high yield market, which is 500bp below its share of the amount outstanding. These guidelines may not prevent a bubble such as the energy sector where modestly leveraged corporates at new issue became distressed in a very short period of time due to the change in the price of a commodity. However, it reduces the number of companies that need optimistic growth scenarios to grow into their capital structures. With regulators only pushing harder on these guidelines we expect future problems to come from changing secular trends in the economy, but not overleveraged new issues.

FIGURE 7
LBO issuance for loans and high yield



Source: S&P LCD, Barclays Research

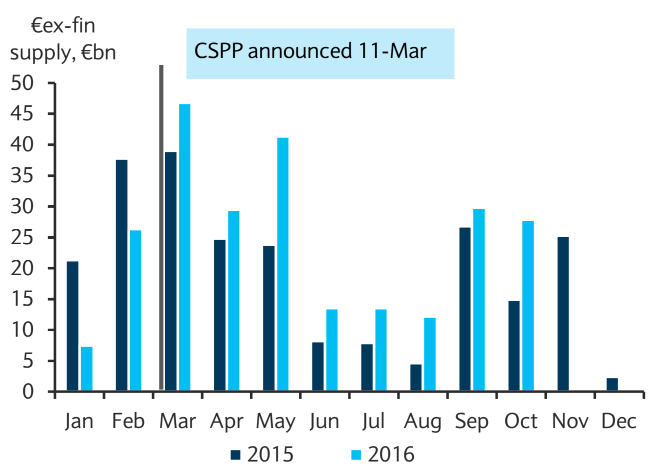
FIGURE 8
ABS amount outstanding by sector



Source: SIFMA, Barclays Research

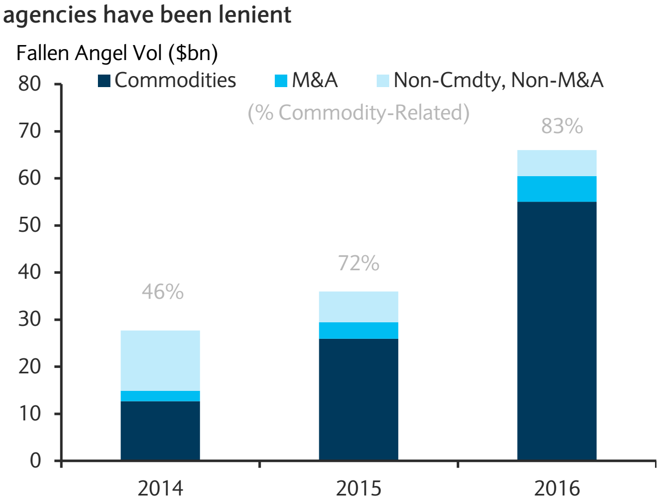
ABS markets have also been constrained by regulations and the aftershocks of the credit crisis. The asset class has shrunk and certain sub-segments have seen major increases in issuance at the expense of others (Figure 8). For example, autos have become the largest component of ABS outstanding, benefiting from the increase in US auto sales and low interest rates in recent years, while student loans have fallen off significantly as the FFELP market continues to wind down and students needing a loan are now likely to borrow through the Direct Loan Program (DLP) rather than take out a private student loan. Esoteric issuance has also increased with some innovative structures, which represents a departure from the desire for less complexity in the wake of the financial crisis. Generically, we are comfortable with most of these esoteric sectors such as device payment plans (e.g. Verizon), personal loans, and whole business securitizations. Rating agencies have been conservative in the cushions through subordinated pieces, but losses have not been tested in downturns for certain sub-sectors; in particular, marketplace consumer loans. Meanwhile, the huge boom in subprime auto ABS issuance gives us some pause as auto sales have levelled off in recent months and the used car market has softened. We would expect spread underperformance in this sector in any risk-off environment.

FIGURE 9
European non-fin supply accelerated post-CSPP, catching up from subdued Jan-Feb



Source: Dealogic, Barclays Research; Data through October

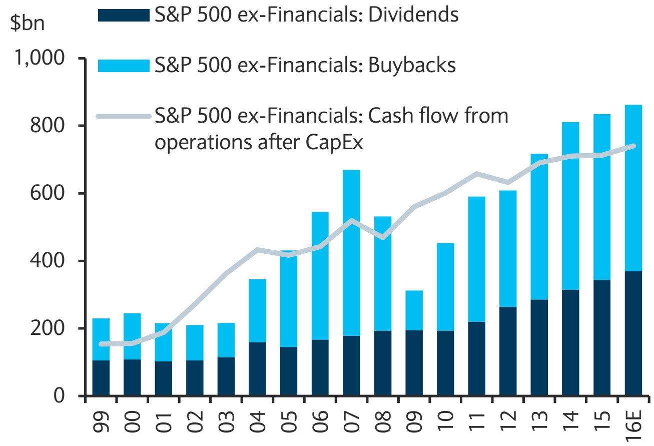
FIGURE 10
The lack of non-commodity fallen angels shows rating agencies have been lenient



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 11

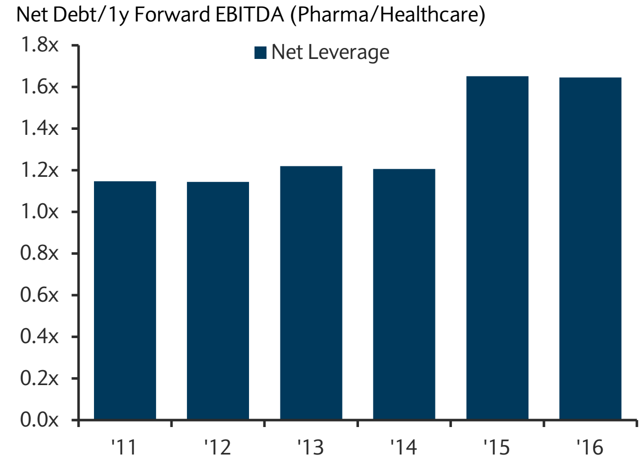
Equities have increased payouts over time



Source: Factset, Barclays Research

FIGURE 12

US Investment Grade Pharma/Healthcare Leverage



Source: Factset, Barclays Research

Another cushion that regulators are mandating, and which will affect both ABS and leveraged finance, will come into play on Christmas Eve. Risk retention is a key feature of Dodd-Frank and the market has had several years to prepare for its implementation. As a result, we do not expect a significant drop from current issuance run rates when issuers are forced to comply. The biggest effect in 2017 is likely to occur in sectors where large amounts have not been retained historically. Importantly, we think issuers in the prime auto sector may consider other sources of funding to replace some ABS. In addition, CLOs are unlikely to increase their share of the leveraged loan market above the current levels (just over 50%) as managers become constrained by risk retention capital. Headlines around changes to Dodd-Frank have increased in the wake of the Republican victory in the recent elections. While there could be appetite to changes to risk retention longer term, we expect the market to at least operate within this framework in 2017.

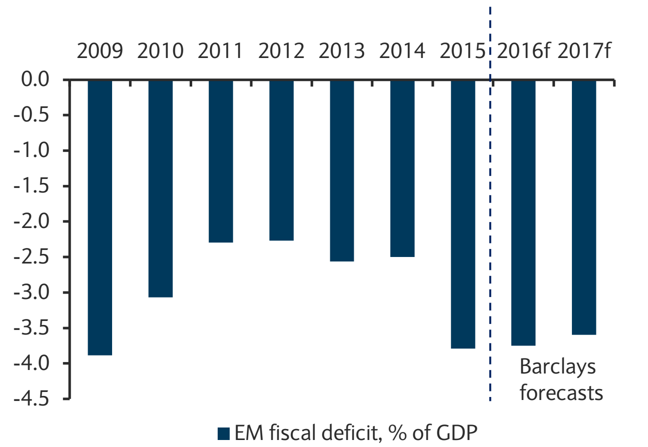
For markets less constrained by regulation, expectations of future earnings growth should be a key determinant of prospective debt issuance. We believe this applies particularly to the investment grade market (*Weaker Fundamentals, Same Price*). With the likelihood of an extended low growth environment in developed markets, we do not expect a material pickup in issuance as the normal course of business. However, there have been unexpected events that produce spikes that can be more troubling if they persist. An example was the ECB announcing corporate bond purchases, which led to a spike in issuance in summer 2016 in Europe (Figure 9). This caused us to increase our forecasts for 2016 issuance, but we do not expect an increase in issuance with aggressive use of proceeds in 2017, unless economic growth surprised to the upside while QE remains in place.

More persistent in the US investment grade market has been the increase in debt and leverage driven by M&A. The lack of non-commodity fallen angels despite significant deal volumes shows that rating agencies have been more lenient with respect to downgrades as long as free cash flow should be available to pay down debt in the immediate future (Figure 10). This is consistent with coverage metrics being much better than leverage when compared to the historical norm. This tempers our concern to some degree, but as M&A remains only 10% off the record levels of 2015, we believe there is little margin for error. Combined with higher payout ratios for equities (Figure 11), this trend is worth monitoring for 2017.

Also on our radar for 2017 more specific to M&A is the fallout from increased debt issuance in recent years in healthcare and pharmaceuticals (Figure 12). Substantial free cash flow once again helps mitigate risks, but with healthcare a political hot button issue in the recent

FIGURE 13

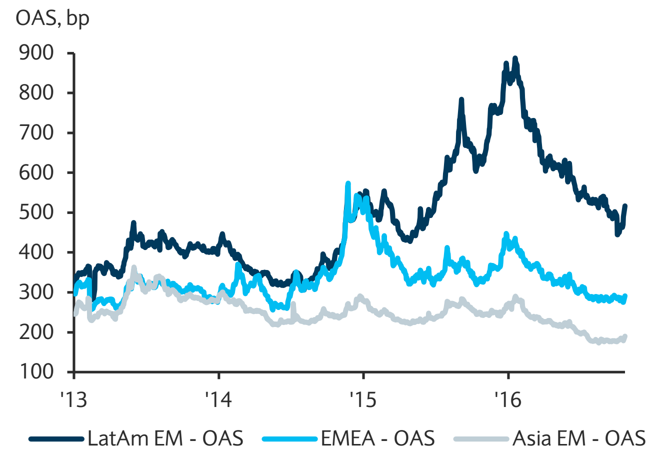
EM fiscal deficits swelled with the commodity rout



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 14

LatAm spreads continue to trade wider relative to the rest of EM



Source: Bloomberg Barclays Indices, Barclays Research

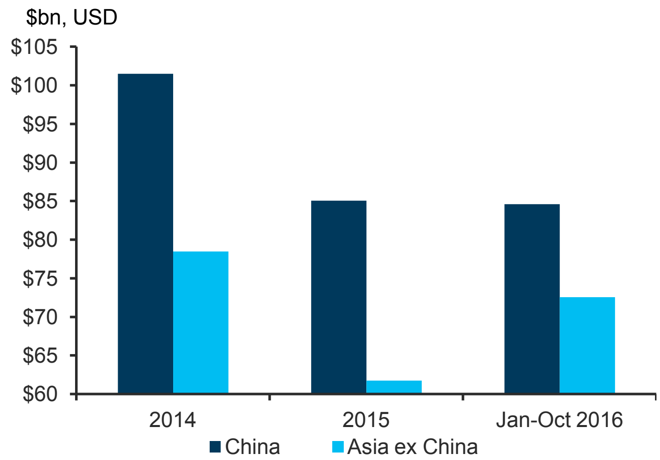
US election, there are downside risks as well. Along the same lines, we highlight growth in technology leveraged loans in the US (*US Credit Focus: Tech Loan Growth: Bug or Feature?*, 23 September 2016) as something to be monitored in the future in that market.

There are other areas that are likely to come under pressure more from a lack of earnings growth than outsized debt growth. The one that stands out prominently across developed markets is retailers. Headlines have been prominent on secular changes that are negatively affecting traditional storefronts. However, there has not yet been a shakeout in terms of restructurings. The sector was prominent as we looked at our potential default outlook for 2017, but contributed little to the default rate in 2016. While the credits in the indices are barbelled with some remaining high quality and some already trading at stressed levels in the US and Europe, we still do not find valuations provide sufficient compensation for the associated risks.

If growth is typically a good proxy for issuance in the developed market world, emerging markets are slightly different. In Latin America and parts of EEMEA, fiscal deficits ballooned in conjunction with the commodity rout (Figure 13). This led to a pickup in issuance from emerging market sovereigns. The most prominent examples in 2016 were from the GCC region including Saudi Arabia, Qatar and Abu Dhabi. On the corporate side, commodity producers that have needed to fund cash flow deficits include prominent national oil companies Petrobras and Pemex. While 2016 corporate issuance for LatAm/EEMEA is above 2015, it is still well below any of the prior three years. We forecast a modest increase in gross issuance from these regions next year, but due to higher redemptions, we estimate that net issuance will be a paltry $3bn in LatAm corporates while EEMEA corporates will register net negative supply of $15bn. Recognizing the risks related to the recent US elections, we believe wide spreads relative to the rest of emerging markets (Figure 14) and improving fundamentals should still make LatAm attractive.

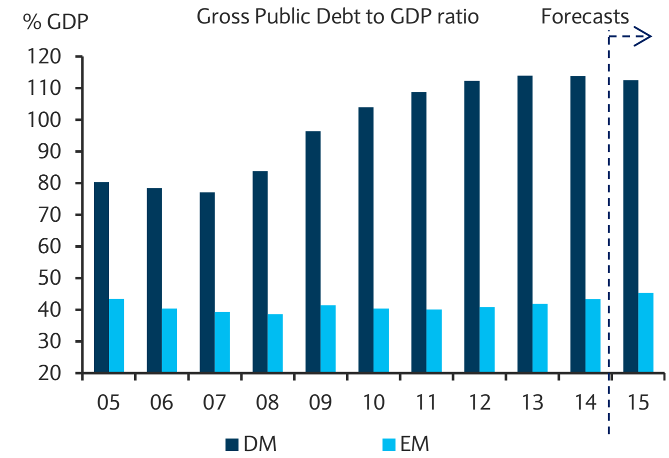
Asia is a different story – this region is undergoing structural shifts as the corporate bond market matures. In addition to some of the trends mentioned above with respect to deficits, Asian sovereigns have used bonds issuance to build reserves. On the corporate side there have been shifts from local currency to hard currency debt, a move to more term financing in the bond market from bank loans and a focus on increased wholesale funding by banks. China has been by far the biggest driver of the increase in issuance from Asia (Figure 15). The current level of stimulus and the gradual weakening currency should generally be supportive for continued issuance. We expect China corporates to issue more than $100bn

FIGURE 15
Asia gross issuance: China vs Asia ex-China



Source: Barclays Research

FIGURE 16
Gross public debt to GDP ratio: DM vs EM



Source: Haver Analytics, Barclays Research

against scheduled redemptions of $33bn. At this rate, China credit would rise from 45% to more than 50% of Asia credit by end-2017.

On the face of it, there should be more room for growth in emerging market corporates as their share of the bond world pales in comparison to their share of global GDP (Figure 16). However, as the case of wealth management products (WMPs) historically in China demonstrates, data on shadow banking and onshore leverage is not always readily available and remains a risk in evaluating the future growth of emerging market debt capacity.

Changing face of demand comes with risks

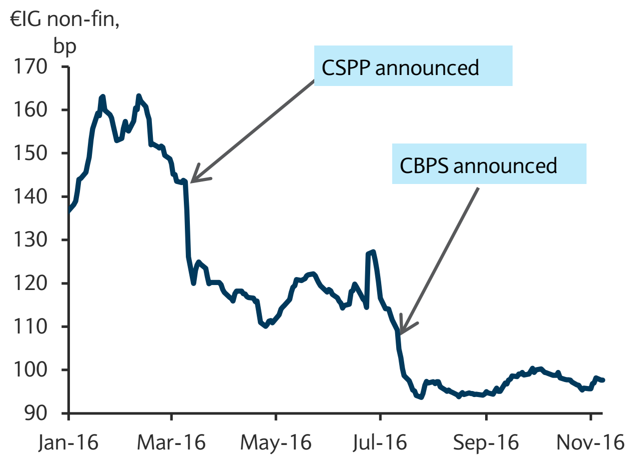
If we are relatively unworried about supply, it is because we believe demand is more likely to be the factor that creates imbalances in this traditional equilibrium and drives spreads. Before we examine how this dynamic may change in 2017, it is important to understand the primary sources of recent strong demand for credit.

The demand picture for fixed income has been structurally positive for several years as the aging baby boomer generation needed more conservative sources of income. In the past year, the existence of very low to negative yields has tested this source of demand and supplemented it with the non-traditional holder of central banks. The Fed has maintained its significant holdings of Treasuries and the BOJ, BOE and ECB have stepped up their purchases of government bonds significantly. When you remove up to one-third of government bonds from the market, like the ECB is likely to have done by the end of its purchase program, the effects are widespread.

In Europe, central banks have directly bought corporate bonds, although in much smaller amounts than sovereign bonds. The ECB has bought corporate bonds at the pace of €8bn per month and the BOE is seeking to purchase £10bn of sterling corporates through March 2018. While the ECB is likely to extend its purchases beyond March of next year, total holdings of corporate bonds by central banks is still not likely to be more than 1% of the global corporate bond market.

FIGURE 17

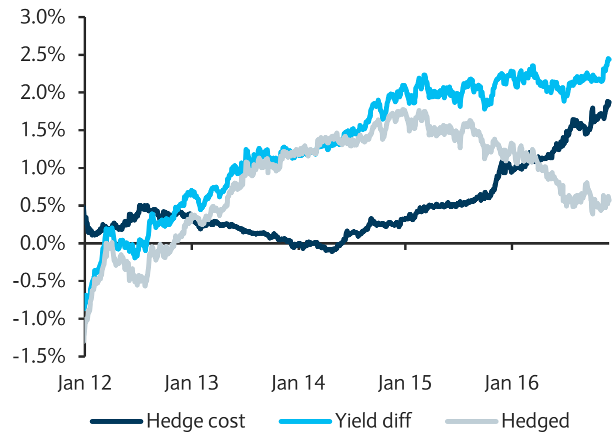
€IG tightened in response to CSPP and CBPS announcements



Source: Bloomberg, Barclays Research

FIGURE 18

EUR-to-USD swap economics



Source: Bloomberg, Barclays Research

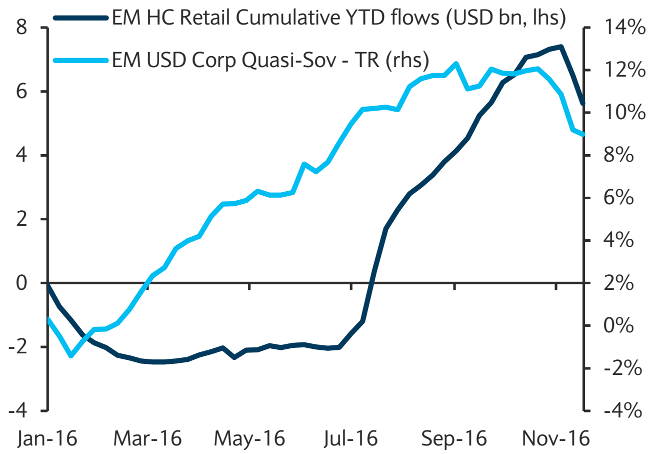
Regardless of the quantum of corporate bond purchases, the depression in yield from central banks aggressively expanding their balance sheets is forcing investors out the curve. The most obvious result of this displacement was the tightening in the European high grade market (Figure 17), which had price-insensitive central bank buying and a shift from traditional government bond investors that did not want to buy negative yielding assets. Although high yield markets benefited from substitution effects into BB in recent years, European investment grade investors appear largely full in their BB buckets and high yield has seen little benefit from CSPP once the purchases actually began earlier this year.

We expect the CSPP to be extended, but volatility will likely increase later in 2017 as asset purchases taper or there is an announcement that they will slow in the future. We do not have significant worries about European IG demand even in this scenario as we would expect support from insurance companies at much welcomed higher yields, provided volatility remains modest. High yield demand is probably more at risk with non-traditional buyers already filled and a backup necessary to make yields attractive in a global context. The much smaller sterling high yield market could also come under pressure if fundamentals suffer during the negotiations between Britain and the EU. In particular we would be cautious on £BBs where there is little premium vs €BBs.

A key tenet of the post-credit crisis world is that quantitative easing knows no borders. One of the primary beneficiaries of a lack of yield in Europe (and Asia) has been relatively higher yielding US assets. As we discussed in our annual deep dive on demand for the US market, foreign holders saw the greatest increase in ownership share either through direct purchases or separately managed accounts in investment grade (*US Investment Grade: Demand Update: Increasingly International*, 28 October 2016), high yield (*US High Yield: Institutional Search for Higher Yield*, 28 October 2016) and leveraged loans (*US Loans & CLOs: Incremental Demand Not Necessary*, 28 October 2016). Even in the more domestic focused Municipals market, there has been evidence of large purchases from yield seeking Asian investors. With risk-free rates off their lows globally and hedging costs having increased substantially for foreign investors, our base case was that this demand would stay positive but likely slow in 2017. Credit has benefitted from being much more attractive than Treasuries on a currency hedged basis (Figure 18). However, following the US election and the subsequent move in Treasuries, the math is getting less compelling. In addition, we would expect some backlash from European investors that are less excited about investing in US assets under President Trump.

FIGURE 19

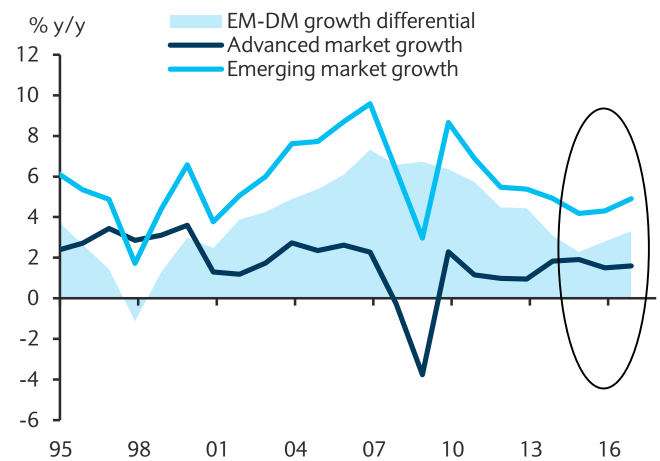
The EM credit rally correlated with flows



Source: EPFR, Barclays Research

FIGURE 20

The EM-DM growth differential is widening out again



Note: 2016-2017 based on Barclays forecast. Source: Barclays Research

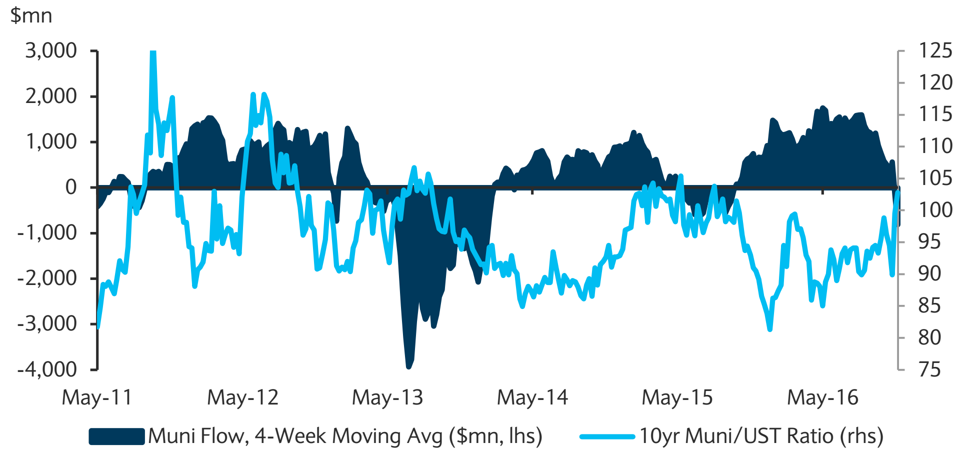
If foreign demand slows there is likely to be some near-term downside to the market, but we think that there are other sources of demand that can pick up the slack eventually. For investment grade, we have seen insurance companies lose share for several years and would expect this to reverse if yields continue to increase. The complicating factor would be if supply growth did not slow, as US investment grade is an exception to the rule of lower supply. For high yield, retail outflows could continue for several months on higher rates. Better total return prospects should cause these flows to stabilize at that point as long as fundamentals do not take a turn for the worse. The immediate beneficiary in the higher rates scenario should be leveraged loan retail funds as investors look for floating rate debt. This should help offset any decline in demand from CLOs as risk retention comes into place. For emerging markets, the rally this year has been correlated with heavy inflows into retail funds (Figure 19) as commodity prices rebounded from the lows, and growth stabilized. With growth finally on the upswing (Figure 20) and some of the economies that struggled with large current account deficits during the 2013 taper tantrum having improved these balances, we do not expect outflows to be as stark following hawkish central bank actions. However, the combination of less accommodative trade policies, which have been one of the key reasons for better fundamentals, and higher rates could pose more substantial headwinds.

Asia continues to become a more important part of the EM hard currency landscape and in-region demand should once again be the key driver in 2017 and is likely to be more stable than the broader EM retail flows, in our view. The continued desire for Chinese investors to own USD assets will be critical. The launch of offshore hard currency funds in the region has been a positive, but this is somewhat offset by the potential for lower demand from WMPs.

The market that is even more dependent on the retail investor than emerging markets or US high yield is Municipals. In the past, demand has been highly correlated with US elections. A Republican victory and the associated tax cuts have typically been negative for flows and results in an increase in yields. Flows have slowed leading into the election and ratios have increased vs. Treasuries (Figure 21). While valuations are better and supply should be modest early in the year, the demand technical could hold back Municipals in 2017.

FIGURE 21

Municipal Flows vs. 10y Muni/Treasury Ratio



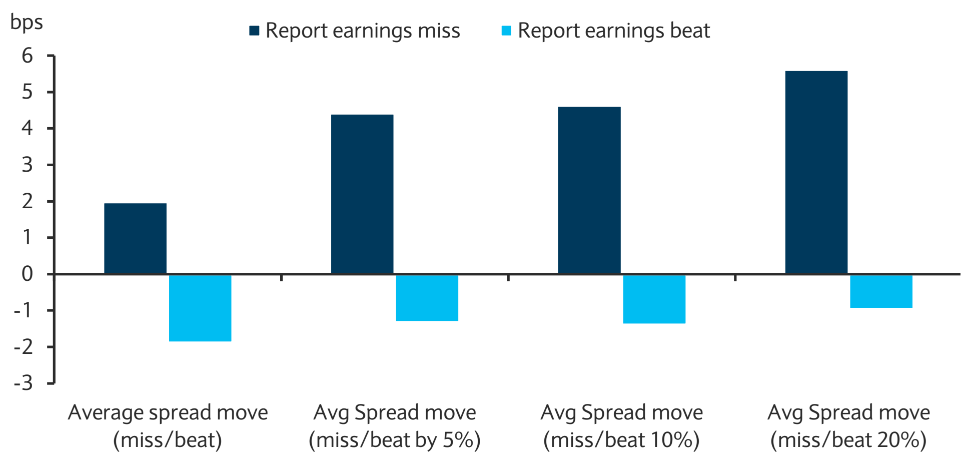
Source: Lipper, Bloomberg Barclays Indices, Barclays Research

Tighter spreads should improve focus on fundamentals

Getting the market direction correct was the most important trade in 2016. Entering the year with fairly elevated yields in some of the riskier parts of the credit market, such as US high yield and emerging markets, the margin for error was significant enough that being long beta paid off even as elevated defaults may have caused a few losses in portfolios. That margin for error no longer exists with yields in the lowest quintile and spreads below average across credit markets. We think this will have the primary effect of punishing poor earnings and limiting upside when companies outperform. We saw a prime example of this behaviour recently in the US high yield market as 3Q earnings misses were punished to a much greater extent than beats were rewarded (Figure 22).

FIGURE 22

3Q earnings surprises reveal larger downside in high yield



Source: Bloomberg, Barclays Research

At a micro level the best data we have on fundamentals is in the US. By our measurements investment grade (*U.S. Netting a Marginal Decline in Leverage*) and high yield leverage (*U.S. High Yield: We Are Not Worried about Credit Metrics*) have increased but not to the extremes that we saw ahead of the credit crisis. Some of this increase is from lower earnings for commodity companies, which has been widely documented. We are slightly more concerned about the jump related to leveraging M&A trades (Figure 23). This has impacted the investment grade market proportionally more than the high yield market due to the leverage lending guidelines. While leverage is now higher than the historical average, so is interest coverage. We do not believe that leverage within the credit market is ever likely to be the cause of a downturn in and of itself; however, it can greatly affect the amplitude of a downturn. The better cash flow profile should prevent the slightly higher leverage from having too detrimental an impact in the next downturn, in our view.

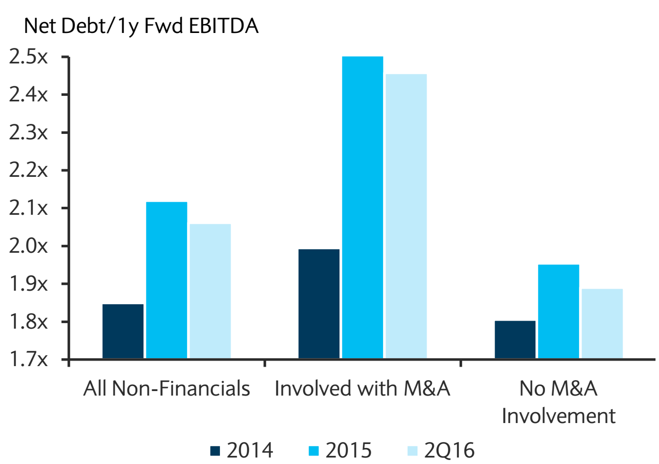
We also do not expect that downturn to be in 2017 as we are forecasting a decline in default rates. US high yield default rates spiked in 2016 to over 7% by issuer count and almost 4% by par. A closer examination reveals that the par amount of defaults was 67% weighted to energy and 17% to metals & mining. Since the most sensitive commodity credits have been cleansed we anticipate a default rate closer to 3% for US high yield in 2017. That said, the ex-commodity default rate is likely to be modestly higher next year. The amount of CCC debt coming due in the next few years has spiked and these financing needs, combined with CCC spreads that have lagged the market rally, are likely to lead to restructurings (Figure 24).

In Europe, the lack of energy producers has meant default rates have been only 2.2% in 2016 and we would expect similar levels next year. Europe in general is at a different point in the leverage cycle than the US. As can be seen in Figure 25, the corporate sector is still deleveraging in the wake of years of low growth. The key is likely to remain the growth picture as opposed to corporate actions that are driving the equation in the US.

With the rally in commodity prices, emerging market fundamentals have stabilized and we expect deficits to decrease in 2017. On the corporate side, leverage has increased, but levelled off at the biggest credits and should remain stable if commodity prices do not double dip. Default rates were 3.8% by par for the HY portion of EM this year. We expect this to drop below 3% in 2017 with LatAm representing the lion's share. There is some additional downside risk though as a potential PDVSA default alone would likely cause a large spike in the par amount to 7-8%.

FIGURE 23

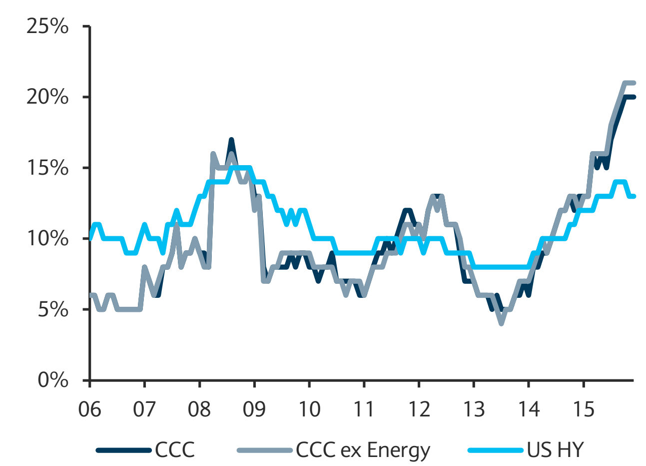
Leverage from M&A has grown in the US IG market



Source: Barclays Research

FIGURE 24

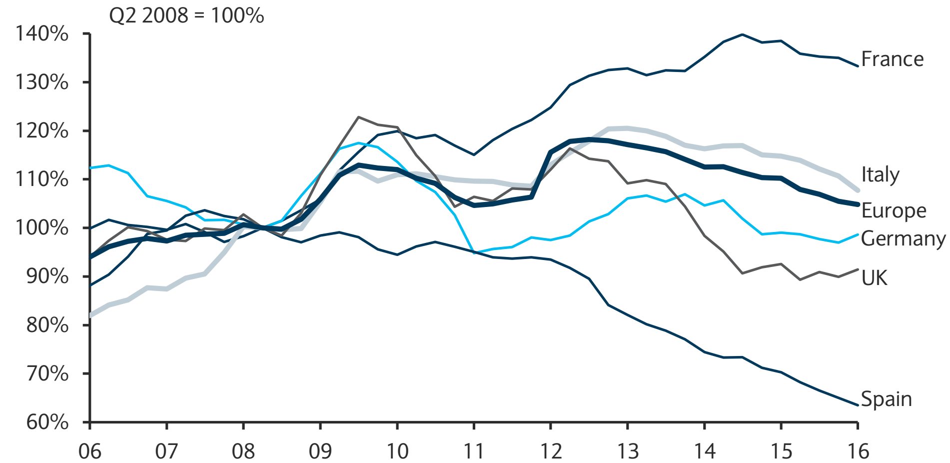
Share of debt maturing in three years in US HY market



Source: Bloomberg Barclays Indices

FIGURE 25

European non-financial debt/gross operating surplus



Source: ECB, Barclays Research

US Strategy

US INVESTMENT GRADE STRATEGY

Riding the yield tide amid uncertainty

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- **We forecast that the US Corporate Index will post an excess return of 175-225bp and a total return of 3.25-3.75% (based on our rates team's forecast) in 2017. Historically, spreads at 130bp tend to produce tightening, absent recession years. We believe that tax reform and fiscal stimulus, along with higher Treasury yields, will support spreads and push out recession risks beyond 2018. That said, policy uncertainty and political/macroeconomic risk events abroad should keep volatility elevated next year, magnifying both upside and downside risks to our forecast.**
- **Relative value will be key for outperformance. We recommend increasing exposure to wide-trading sectors, as well as to banks and life insurance, and avoiding tight-trading sectors. On-the-run securities also look attractive relative to off-the-runs.**
- **Given the recent increase in yields, we believe valuations look most attractive in the intermediate and long areas of the credit curve. We expect a moderate flattening in the 10s30s (~5bp) and 5s10s (~5bp) credit curves.**
- **Demand should continue to be supportive in 2017, with higher long-dated yields likely to encourage both domestic and international insurance company buying.**
- **We forecast $1,350bn of gross, fixed-rate issuance (-10% y/y). We expect higher US bank issuance but lower industrial issuance, driven by deleveraging from issuers that recently engaged in M&A and those involved with commodities.**
- **CDX underperformed cash excess returns for the first time since 2012. In 2017, our base case is for carry-like returns given relatively tight starting spread levels. We recommend looking for opportunities to rotate shorts from CDS to cash where the basis is positive and taking advantage of low implied volatilities in CDX options to hedge against policy uncertainty.**

2017 performance outlook

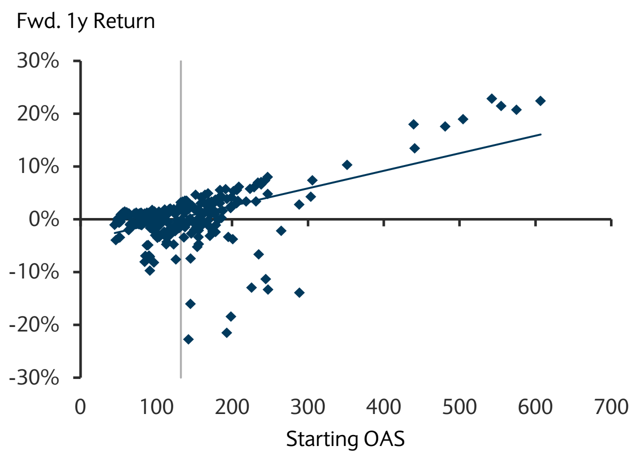
The US Corporate Index tightened 35bp year-to-date – from 165 to 130bp – generating excess returns of +392bp. Industrials and utilities outperformed financials, with 50bp and 28bp of tightening, respectively, and +4.8% and +3.8% in excess returns; financials tightened only 8bp and had excess returns of 2.2%. Longer maturities outperformed: 10y, 20y, and 30y paper tightened 38bp, 49bp, and 45bp, respectively, and produced excess returns of 3.7%, 7.6%, and 7.0%; meanwhile, 2y and 5y bonds tightened 14bp and 34bp, respectively. Industrial outperformance has been driven by a large beta compression, with the widest sectors – energy and metals & mining – experiencing the most tightening as commodity prices and market sentiment recovered (excess returns: energy +10.2%, metals & mining +22.6%). The index has produced total returns of 5.2% for the year.

With spreads at 130bp and with tax reform and fiscal stimulus potentially mitigating pre-2019 recession risks, we believe the most likely outcome for investment grade spreads is modest tightening. Our base case is for 10bp of tightening and 175-225bp of excess returns. Relative value positioning will be key:

- We prefer increasing exposure to wider-trading sectors with relatively benign fundamental outlooks (banks, life insurance, telecoms) and decreasing exposure to tight-trading sectors (retail, integrated).

FIGURE 1

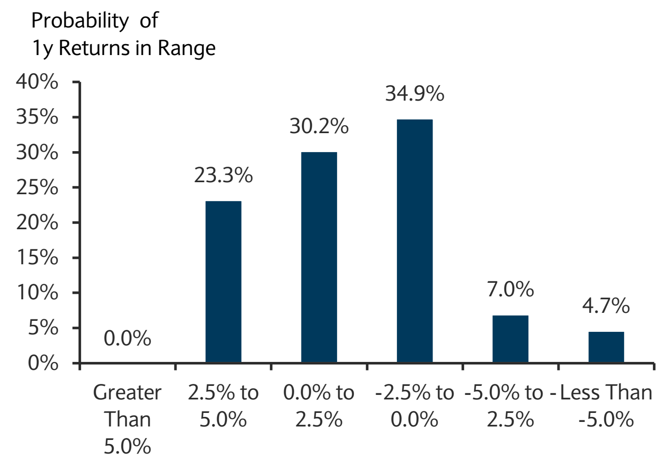
For the US Corporate Index, current OAS is the starting point for excess return projections…



Source: Bloomberg, Barclays Research

FIGURE 2

…Starting between 115bp and 145bp, the median excess return has been near zero, with risks weighted to the downside



Source: Bloomberg, Barclays Research

- We favor financials over industrials, given that the move higher in long-dated Treasury yields should support banks and insurance.
- We prefer 10y+ securities given higher Treasury yields and the potential for a Fed hike over the medium term. This should provide technical support for the long end, as yield-driven insurance companies buy more paper and 5y-and-in spreads come under pressure.
- Off-the-run securities are trading tight to on-the-runs. Swapping into more liquid securities should better shield investors from the elevated volatility we expect next year.
- We prefer BBBs to As, all else equal, given the potential for further beta compression.

US Corporate Index 2017 excess return forecast

At current spreads, and with the potential for fiscal support to extend the current economic expansion beyond 2018, we believe the most likely outcome for investment grade spreads is modest tightening. However, because there remain many unknowns about the details of stimulus and policy changes under a new administration, there is more room than usual for either positive or negative surprises, and we expect that volatility will be elevated relative to a typical non-recession year. Our base case is for 10bp of tightening, with 5bp of flattening in 5s10s and 10s30s OAS, which translates to 175-225bp of excess returns for the index.

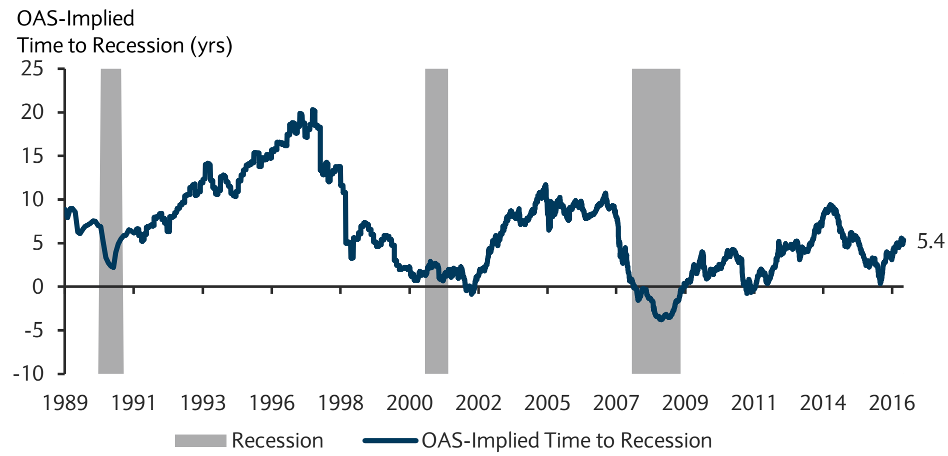
Historically, returns from current spreads have been tightly clustered in a modestly positive range. In the past, when the US Corporate index has started a 12-month period from a valuation ranging from 115 to 145bp of OAS, the median one-year performance has been 96bp (Figure 1), but investors have rarely actually received exact carry (Figure 2):

- The most frequent occurrence, a bit more than 50% of the time, has been carry plus modest tightening, with spreads compressing about 15-20bp on average.
- The next most frequent occurrence (35% of the time) has been meaningful widening, with spreads rising about 40bp on average.
- There have been very few high upside events and a small number of more significant downside events.

That said, an important refinement to how we weight potential return outcomes is that the widening events have been much more likely to happen in the lead-up to recessions. With unemployment low, we are toward the late end of the economic cycle. Compounding that risk are investment grade credit valuations that, on the surface, seem too optimistic about where we are in the cycle. Given that companies in the US Corporate Index rarely experience bankruptcies, the risks to index investors are mainly in mark-to-market volatility and losses. By estimating those losses to the trough of a recession, we are able to estimate the time to recession implied by current spreads. Historically, OAS has, on average, peaked at around 225bp during recessions. Assuming this loss and dividing by the current starting OAS, we estimate that investment grade bonds are pricing in 5.4 years until the next recession (Figure 3).

FIGURE 3

Investment grade credit is valued for more than five years of economic expansion



Source: Bloomberg, Barclays Research

If we make it 5.4 more years, the current expansion would end up as the longest on record (Figure 4). While we do not think that mere length has much to do with whether an economic expansion can continue, there is also nothing about current conditions that suggests we will experience an exceptional expansion. Absent an extraordinary event, we would be starting to feel cautious about the prospects for high grade credit. However, the surprise election of Donald Trump to the presidency has adjusted our outlook significantly.

Trump stimulus probably pushes recession potential out to 2019

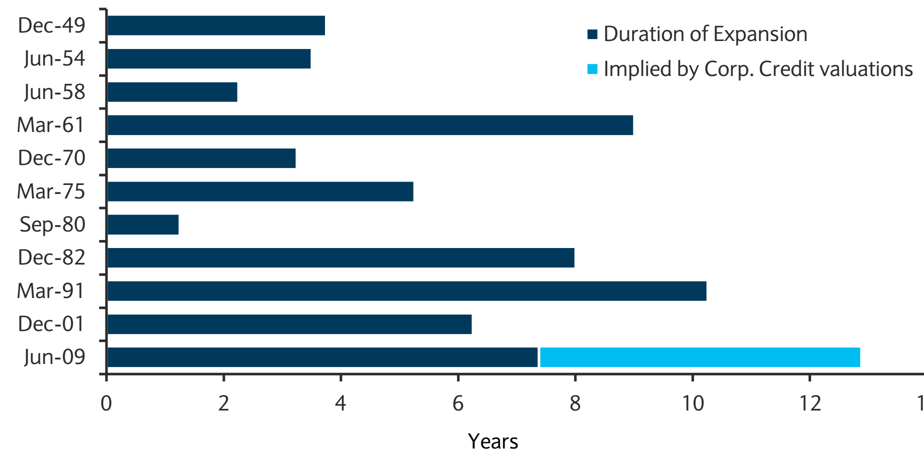
In its post-election report, *There's a new tariff in town*, November 10, 2016, the members of our economics research team identified a number of expected policy changes with implications for GDP growth. The key policy changes that they see moving growth are modest tariffs on imports from China and Mexico, as well as fiscal stimulus in the form of tax cuts and spending on infrastructure and defense. From the 2.9% GDP growth the economy experienced in 3Q16, they see a modest deceleration to 1.5% in 2Q17 as the tariffs take effect. From there, they expect a rebound in growth to 3% in 1Q18 as the more lagged effects of fiscal stimulus propagate through the economy. We agree with our economics colleagues that expansionary fiscal policy reduces the probability of a recession to low levels through 2018.

Demand/Supply technicals should also remain favorable

Strong international demand for USD credit has been a key driver of valuations this year. Elevated interest rate and currency volatility could weigh on foreign demand in 2017; however, we believe it will be more than offset by higher demand from insurance companies given the back-up in risk-free yields. Certain policy priorities, particularly corporate tax reform and repatriation, could also provide additional technical support to credit. If tech companies in the index repatriate cash (they hold more than $500bn of cash

FIGURE 4

The current business cycle expansion has already been longer than average, and credit is valued as if it will be the longest since at least 1950



Source: Bloomberg, Barclays Research

abroad), issuance needs would be reduced. Moreover, lower corporate tax rates reduce the interest tax shields that companies get from issuing debt, potentially encouraging them to reduce debt in favor of equity.

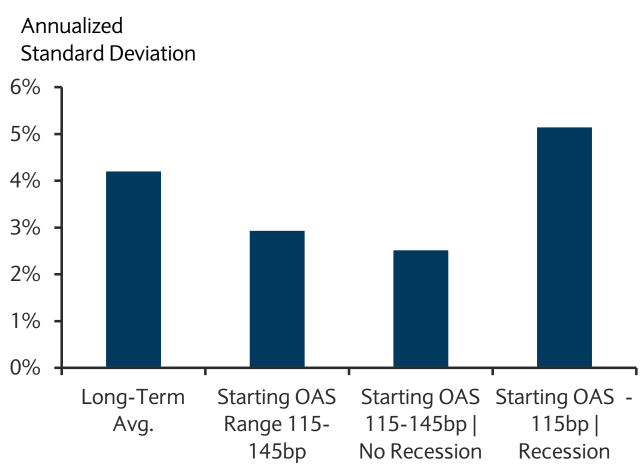
Our outlook

Given our view that a pro-growth agenda will push recession risk past 2018, historical experience suggests that returns for 2017 are more likely to be concentrated in the modest upside end of the distribution, with a focal point between carry (about 130bp, given current OAS) and carry plus some tightening. In our base case, we project roughly 10bp of tightening, with some flattening in 5s10s and 10s30s OAS curves due to the higher long-dated Treasury yields since the election. This translates to 175-225bp in excess returns. If yields continue to move higher, we would expect credit curves to flatten more aggressively.

While the returns are likely to be in keeping with a non-recession year, we are less sanguine about volatility. In a normal non-recession year, from the current OAS range, excess return volatility would be very low – just over 2% (Figure 5). Because there are still many

FIGURE 5

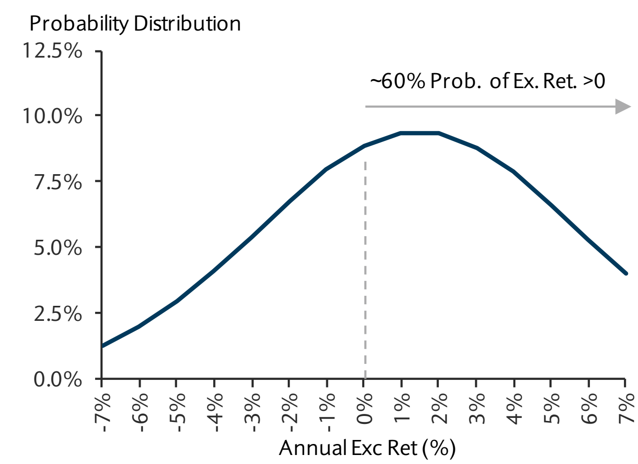
Even with no recession, we expect 2017 volatilities to be closer to long-term average because of political risks



Source: Bloomberg, Barclays Research

FIGURE 6

Investment grade excess return probabilities are weighted toward gains in 2017



Source: Barclays Research

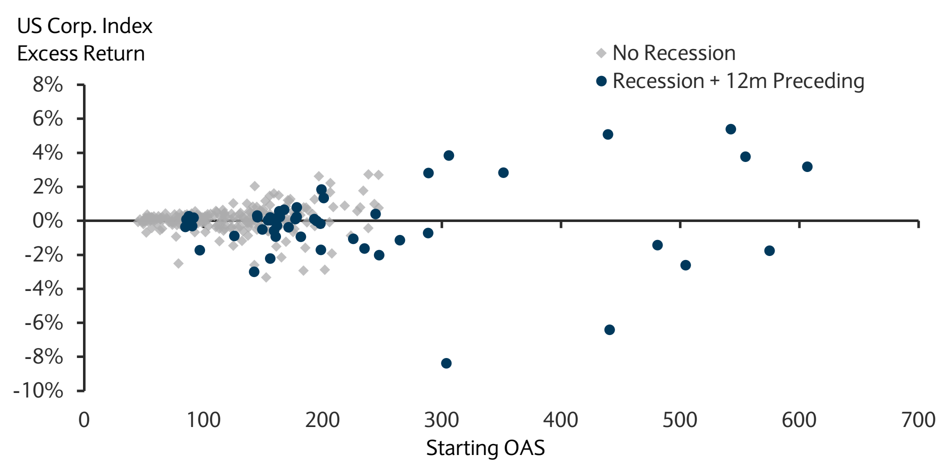
unknowns about the details of policy changes under the new administration, there is more room than usual for either positive or negative surprises. As a result, we expect volatility to be elevated relative to the non-recession base rate. While we do not think it should rise to the level we might expect in a recession, a good estimate is probably closer to the long-run average of 4%. Assuming a normal distribution of returns, our core expectation, and average volatility, suggests about a 60% probability of positive returns in 2017 (Figure 6).

Nevertheless, because of this elevated volatility, we believe that investors should continue to look for early signals that the economic cycle is turning. As Figure 7 demonstrates, regardless of the starting spread level, the 12 months preceding the end of a recession are periods of much worse, and significantly more volatile, credit performance. When we think about recessions in this cycle, we use four indicators that have reliably signaled the potential for an economic slowdown:

- The y/y growth rate of total employment shifts from accelerating to decelerating, which usually occurs within 36 months of the start of a recession. Job growth peaked in February 2015 and has decelerated consistently since then.
- Banks start tightening lending standards in the Federal Reserve survey of senior lending officers, which typically happens within 24-36 months of a recession. They first reported tightening in October 2015 and have reported four consecutive quarters of tightening.
- The Federal Reserve enters a tightening cycle. This typically happens within 24 months of a recession. There is some room for interpretation on this indicator. The Fed raised rates in December 2015, and although it has been on hold since, our economics research team believes that it is likely to raise again in December and in 2017.
- Jobless claims move from a falling trend to a rising trend. The timeliest indicator, it usually occurs within 12 months of the start of a recession, but has not happened yet this cycle. We believe this is the best indicator for investment grade credit investors to watch, as it is the most closely aligned with the potential for widening events in the bond index. In May 2016's *Not Afraid for Our Jobs, Yet*, we presented a model for when we could have confidence that we have moved into a rising claim environment. Updating that value, we would need to see the four-week moving average of jobless claims reach 315k to be 50% confident of a regime shift (330k for 75% confidence). With claims averaging only 254k in the past four weeks, we are well away from that line.

FIGURE 7

Recessions are a predictable source of volatility and downside for investment grade credit



Source: Bloomberg, Barclays Research

Return implications for different investors

- **For benchmarked discretionary investors (primary goal is alpha, but relative to an investment grade credit benchmark):** Despite tight trading levels, we would caution against reducing risk outright. Given our expectation for modest tightening, we would tilt toward wider-trading sectors, long duration, and BBBs and away from lower beta parts of the market.

- **For non-investment grade benchmarked investors:** For investors focused on the investment grade market for alpha generation, it likely makes sense to reduce exposure to investment grade credit excess returns, despite our view that gains are more likely than losses. Given the modest room for upside, the volatility of those returns will likely mean the Sharpe ratio will look less attractive than riskier assets if there is upside, but will still be vulnerable to losses if there is a downside event for risk assets. That said, we think that there are pockets of opportunity – particularly, curve flattening and a compression in the financial-industrial basis – that yield better risk-adjusted returns.

Fundamentals are showing improvement

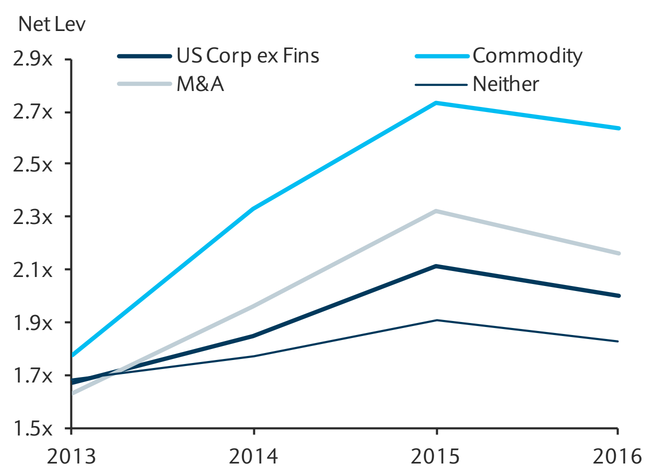
Non-financial deleveraging to be led by improving M&A and commodities

Figure 8 compares the leverage of issuers that have recently engaged in M&A with that of those in the metals and energy sectors and those with neither designation. Although net leverage has risen across every category since 2013, the increase for those in the "neither" bucket has been minimal. Among these issuers, leverage has risen by, on average, only 0.1x since 2013. The bulk of this rise has come from commodities and M&A, up 0.8x and 0.5x, respectively, since 2013; that said, the drivers of leverage increases in 2013-15 – commodity prices and M&A – are now becoming deleveraging catalysts.

With oil and metals prices well above year-to-date lows, the fundamental outlook for energy and metals & mining has improved considerably in 2016 – our commodity analysts believe that WTI oil will continue to recover next year, to $56/bbl, up $10/bbl from current levels (*Commodities Weekly: Making commodities great again?* November 13, 2016). Moreover, since the M&A surge in 2014 and 2015, many companies that boosted leverage to fund acquisitions are now starting to deleverage to protect their investment grade ratings; we find that that leverage tends to revert

FIGURE 8

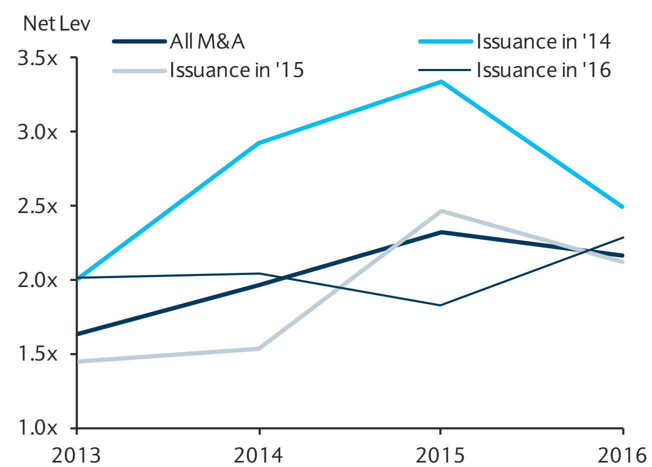
Net debt/EBITDA* by issuer type



Note: For simplicity, we put commodity issuers that recently engaged in M&A in the "commodity" bucket, not in "M&A." * We use 1y forward (normalized) EBITDA to smooth out one-time adjustments. Source: FactSet, Barclays Research

FIGURE 9

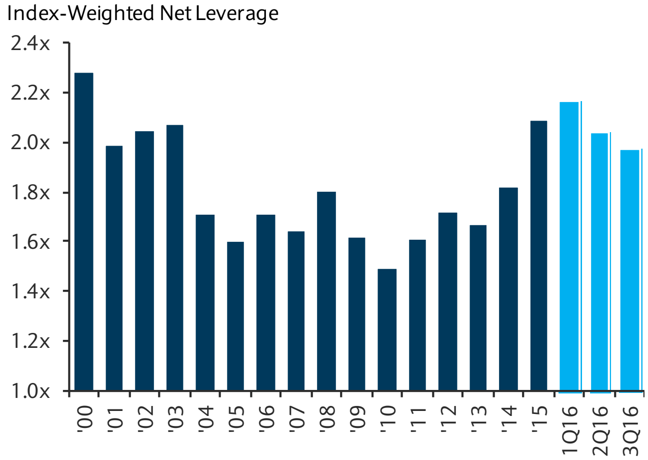
Net debt/EBITDA* by year of debt issuance for issuers engaged in M&A



Note: * We use 1y forward (normalized) EBITDA to smooth out one-time adjustments and better capture EBITDA estimates for companies recently engaged in M&A. Source: FactSet, Barclays Research

FIGURE 10

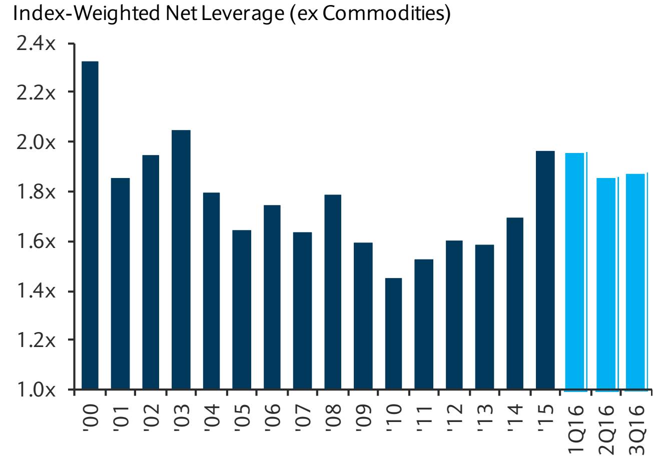
US corporate net leverage declined in the third quarter…



Note: Using a market-value-weighted average of net debt/one-year forward EBITDA; excluding autos and financials. Source: FactSet, Barclays Research

FIGURE 11

…And was roughly unchanged excluding commodities



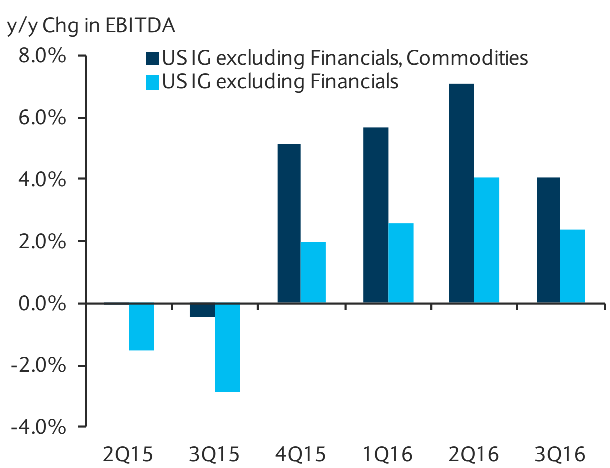
Note: Using a market-value-weighted average of net debt/one-year forward EBITDA; excluding autos, commodities and financials. Source: FactSet, Barclays Research

toward a lower steady state in the 2-3 years after an M&A announcement and subsequent debt issuance (Figure 9). Meanwhile, leverage for non-commodity companies not recently engaged in M&A has been broadly stable since 2013. As a result, year-to-date, leverage has fallen from roughly 2.2x to 2.0x for the US Corporate Index (excluding autos and financials) and from 2.0x to 1.9x if commodities are excluded also (Figures 10 and 11).

A key source of concern for investors has been that corporates, particularly higher-rated issuers, have been systematically targeting higher leverage, which would result in higher credit risk. On the face of it, the sharp rise in leverage since 2013 appears to confirm that view. However, as discussed above, most of the increase in leverage can be attributable to commodities and M&A activity, suggesting that these systemic concerns are mostly unfounded. Moreover, there does not appear to be any consistent or statistically significant relationship between aggregate leverage and aggregate spreads or returns (Figure 13).

FIGURE 12

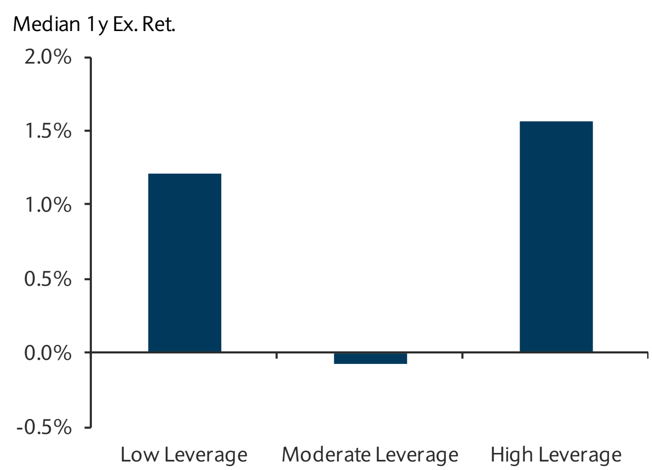
Year-over-year changes in LTM EBITDA for the US corporate index, including and excluding commodities



Note: Calculated using a market-value-weighted average of y/y growth by ticker. Source: FactSet, Barclays Research

FIGURE 13

The US Corporate Index has produced good and bad returns in both high and low leverage states



Source: Leverage states are defined by tercile. Source: FactSet, Barclays Research

Indeed, companies outside the commodity sector that have not engaged in M&A have kept leverage essentially flat since 2013. The increase in leverage for commodity credits was obviously driven by a revenue shock rather than a deliberate shift to operating with a riskier financial profile. Companies that recently engaged in M&A do appear to have increased leverage to fund these transactions. While this makes them vulnerable to near-term economic shocks and results in heightened near-term credit risk, these issuers have shown a tendency to deleverage post-deal. As highlighted above, we see evidence that acquirer leverage reverts to the pre-M&A steady state within two or three years, suggesting that any increase in leverage is temporary. Furthermore, LTM M&A activity has slowed relative to 2015, and we expect M&A-related issuance to continue to slow in 2017 (*2017 Investment Grade Issuance Forecast*, November 10, 2016).

Ultimately, we expect issuers that have recently been involved in M&A and those in energy/metals to continue to post declines in leverage roughly in line with this year's combined decrease of 0.2x. At the same time, those outside of either category, roughly 50% of non-financials, should keep leverage stable, in our view, as they have over the past several years. Together, this implies a reduction in index leverage of about 0.1x next year, to 1.9x, which is our base case projection for 2017.

Financial fundamentals remain robust and should continue to improve

Financials, outside of P&C, look attractive relative the index, in our view. Against a backdrop of higher Treasury yields and a steeper yield curve following the US elections, we believe life insurance and bank fundamentals appear attractive, particularly relative to their spread valuations. Indeed, as Figure 14 shows, the financial-industrial basis continues to look wide by historical standards. We remain Overweight life insurance and banks going into next year and Underweight P&C insurance.

Life insurance

The life insurance index has outperformed US credit in seven of the past eight months, but remains one of the widest-trading investment grade sectors at +155bp, or 25bp wide of the index. Nevertheless, we still see value in life insurance given higher Treasury yields and the steepening of the yield curve since the US elections. These conditions could be a tailwind for the sector's earnings. Our fundamental analysts see no shift in its strong operating capital, moderate leverage, and commitment to strong parent liquidity; they rate the sector Overweight.

P&C insurance

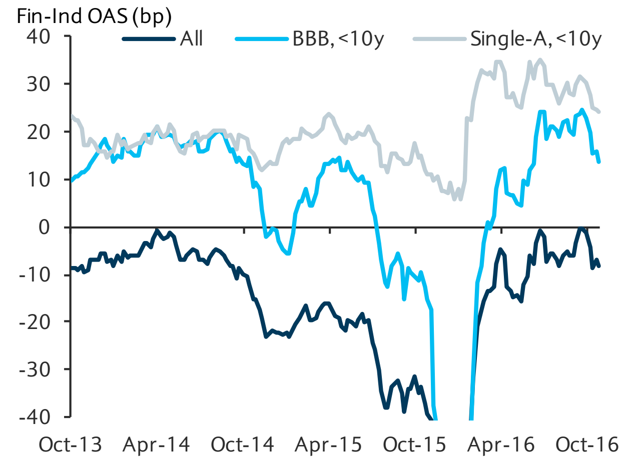
The P&C sector faces multiple headwinds stemming from weak pricing conditions in many lines of business. Premium rates remain under pressure amid an abundance of capital from traditional and non-traditional industry participants, while reserve redundancies appear to be shrinking. These factors have crimped underwriting results, trends that we believe are partly a function of structural changes that will persist. We remain Underweight P&C.

Banks

Banks are now trading 10-15bp through industrials, well off the tights of 70bp in February 2016. In a modestly tightening environment, we believe banks can compress further through industrials and outperform. We expect the sector to continue to demonstrate strong asset quality, substantial liquidity, and still-improving capital positions, along with profitability expansion through 2017. Despite the new administration, we believe the core tenets of enhanced capital and liquidity regulation that have helped drive the improvement in bank credit will remain in place. The move in rates post-election will be supportive of net interest income growth. We remain Overweight the sector.

FIGURE 14

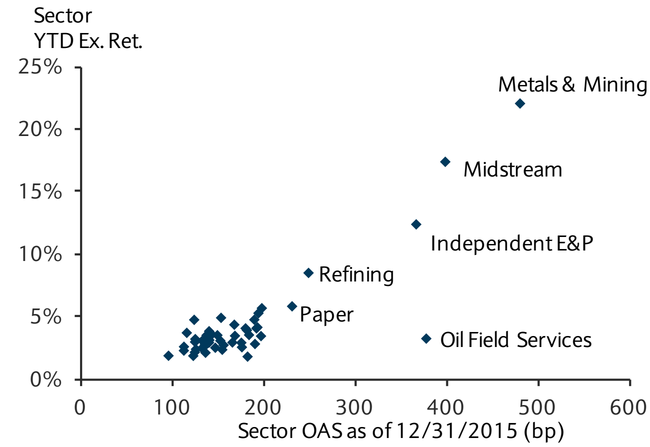
Financial-industrial basis remains wide relative to the past three years



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 15

In 2016, as in many past years, the best-performing sectors started as the widest



Source: Bloomberg Barclays Indices, Barclays Research

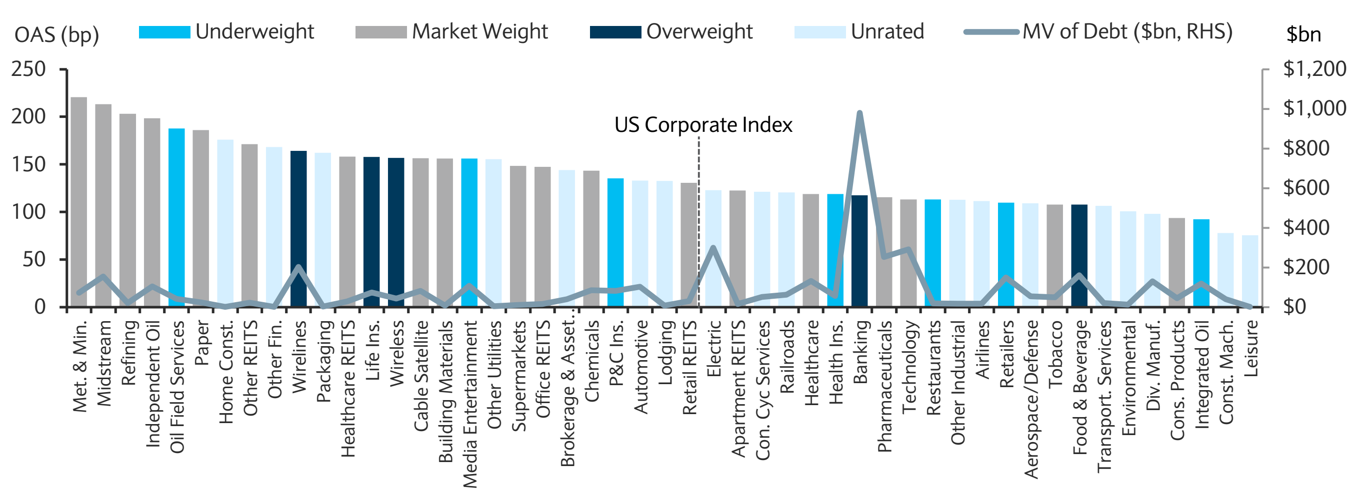
Sector relative value

Credit spreads have staged a remarkable rally since the middle of February, with the US Investment Grade Index tightening 85bp from the wides. The rally was broad, but the biggest beneficiaries have been in the commodities sectors, most of which started the year among the widest-trading sectors (Figure 15). Three of the top five sectors were in energy, with midstream, independent E&P, and refining all generating excess returns at least two times higher than the US Corporate Index as oil prices rallied nearly 75% from their lows. Metals & mining was the best performer, even though metals prices having staged a much more modest comeback than energy.

Donald Trump's victory in the presidential election leaves Republicans in full control of the federal government and has the potential to result in a pro-growth agenda. That could prolong the business cycle: our economists are forecasting GDP growth of 2.2% in 2017 and 2.6% in 2018, respectively, and believe the risk of a recession should remain low until late

FIGURE 16

The index has a much tighter dispersion of sectors at the end of 2016, with Underweights spread through the valuation range



Source: Bloomberg, Barclays Research

2019. A supportive economic backdrop makes it more likely that spreads will tighten. In such an environment, barring credit-/sector-specific issues, wider-trading sectors should be biased to outperform, owing to their higher carry and generic spread compression. Similarly, tighter-trading sectors are likely to underperform the index unless there is a specific catalyst that drives spreads tighter. Figure 16 highlights the average spread for each sector.

In addition to the quantum of excess return, the risk of the sector (as measured by the historical volatility of returns) is obviously a key consideration in deciding sector allocation (Figure 17). When wider-trading sectors are also higher beta, it makes sense to account for higher chances of a loss when establishing their ratings. A few wider-trading sectors – specifically, life insurance, wireless, and financial companies – appear attractive even after accounting for their higher beta, and we assign them an Overweight rating. At the other extreme, lower-beta sectors tend to trade tighter than the index. As mentioned above, without a specific catalyst to drive performance, we expect them to underperform the broader market in an environment with stable/slightly tighter spreads. These include P&C, health insurance, restaurants, and retailers. In some cases, the lower beta relative to the tighter sectors makes them more attractive on a volatility-adjusted basis, especially combined with some potential for spread tightening. For some of these sectors, such as banks, we assign an Overweight rating; on other such sectors, including pharmaceuticals, technology, and consumer products, we recommend a Market Weight position.

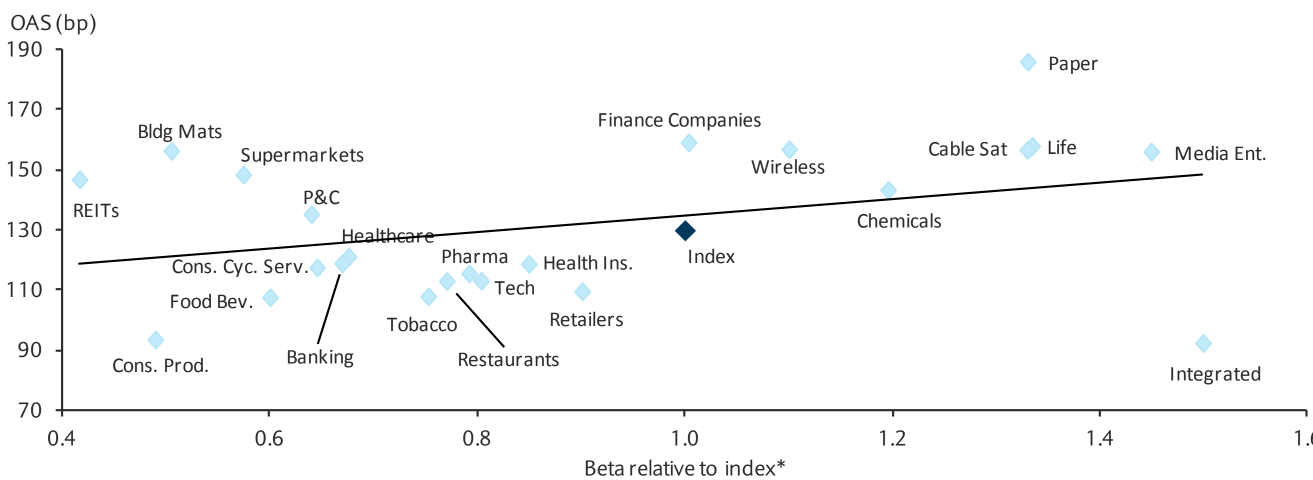
Figure 18 summarizes our select sector views (for more detail, please see *Sector Update*).

Curve positioning for 2017

Since the end of June, Treasury yields have risen significantly, most acutely in the long end, as markets have priced in an increasingly large probability of a Fed rate hike, especially after the surprise US election results. In our view, higher yields could cause some selling pressure in the front end of the credit curve and should eventually provide support for the long end. We believe that 30y and 20y bonds look most attractive, as 10s30s curves have flattened only 2bp over the past month even though long-dated corporate yields are more than 50bp higher (now at 4.65%, up from 4.13% at the end of October). 10y bonds continue to trade historically wide to 2y and 5y securities, although the gap has closed somewhat since the election. We continue to recommend swaps from 5y to 10y bonds and moving into 20y bonds from 30y bonds.

FIGURE 17

OAS versus relative beta by sector (excludes wider-trading commodity sectors)



Source: Bloomberg, Barclays Research

FIGURE 18

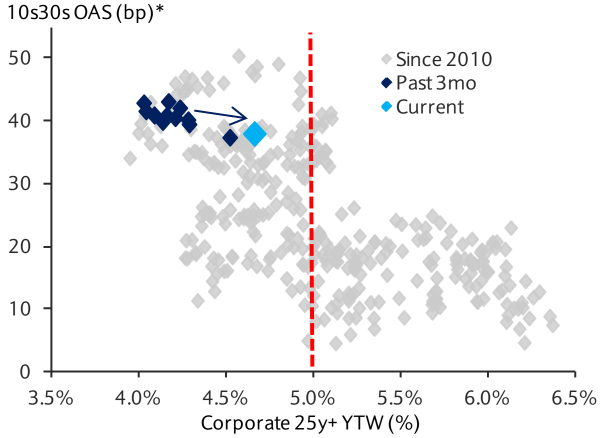
Select sector-level views

Sector	Avg OAS	Rating	Justification
Food & Beverage	111bp	OW	Trading tighter than the index makes it difficult to outperform, but a clear path to deleveraging for the largest issuers likely gives room to return to even tighter valuations that have prevailed historically.
Banks	119bp	OW	Trades close to the index spread, but credit fundamentals continue to improve, and enhanced capital and liquidity requirements are likely to remain in place even under a Trump administration.
Life Insurance	155bp	OW	The sector trades wide to the US Corporate Index and higher than the beta-implied level, so has it room to outperform. Rising rates and steeper curves could boost profitability, and risks are modest, with strong capital, liquidity, and leverage.
Telecom	165bp	OW	The sector trades wider than the index and operates within a market niche that provides significant protection from competition and no obvious disruptive threats.
Technology	114bp	MW	The sector trades at a spread nearly identical to the index, and an environment that is favorable to some companies, but not others, suggests that it should perform in line with the broader universe.
Pharmaceuticals	118bp	MW	Trading tighter than the overall index, the sector needs an improvement in fundamentals or sentiment to outperform. While the election of Donald Trump should reduce the intensity of pressure on pricing decisions, the need to undertake M&A to build drug pipelines presents a risk to ratings for some issuers.
Independent E&P	199bp	MW	The fourth widest trading sector should have a bias to outperform in a rising market, but debt/unit leverage and commodity exposure make it riskier in a sell-off.
Refining	206bp	MW	That it is trading wider, along much of the energy complex, suggests upside, especially if regulatory pressures are eased. But there are risks from operating issues, management decisions, and valuations relative to product inventories.
Midstream	210bp	MW	The second-widest trading sector can more easily outperform and is receiving unusually high compensation per unit of leverage. Risk is a long-term drag on revenues as customers seek a return to historical average value share.
Metals & Mining	215bp	MW	The widest-trading sector in the in the US Corporate Index has room for upside, especially as the industry seems to be reaching a new steady-state position. Risks come from renewed weakness in prices, especially iron ore, and the potential for M&A to replenish reserves that have received less investment in the past several years.
Integrated E&P	94bp	UW	One of the tightest-trading sectors in the US Corporate Index, integrated E&P would need a lot to go right to outperform. But most of the risks appear to be weighted to the downside, with historically weak balance sheets and cash flows despite tight valuations.
Retail	111bp	UW	Trading tighter than the index makes it difficult to outperform, as does trading rich to the sector beta. The sector is challenged by secular shifts (especially from online selling), mitigated by incremental positives and the scale of the largest issuers.
P&C Insurance	134bp	UW	The sector trades only slightly wide to the US Corporate Index, and persistent changes in the industry are weakening pricing and reserves.
Media	156bp	UW	Despite trading wider than the index, media has risks that are skewed to the downside, as fundamental trends are worsening and companies are using leverage to pursue growth.
Oil Field Services	185bp	UW	One of the wider-trading sectors suggests room for upside in a rising market, but still facing pressure from customers who are seeking to keep their costs permanently lower.

Note: Summary of views from *Sector Update*, November 18, 2016. Source: Barclays Research

FIGURE 19

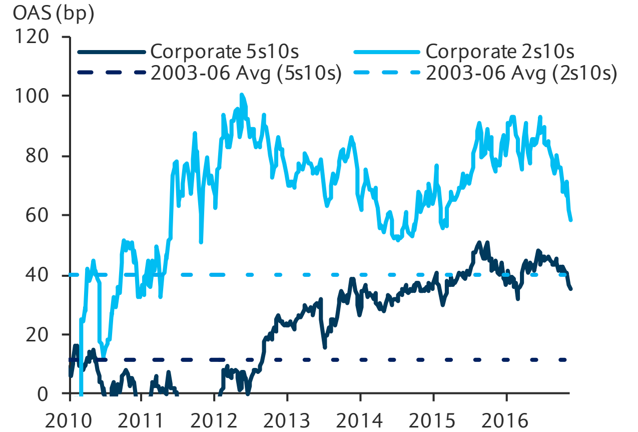
10s30s credit curves have more room to flatten given the sharp increase in long-dated corporate yields



Note: *Ex-financials. Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 20

Although 10y bonds have tightened relative to the front end, they remain well wide of historical averages



Source: Bloomberg Barclays Indices, Barclays Research

10s30s curves have steepened since June, even as corporate yields in the long end have risen significantly. Most of the steepening occurred from June to October; however, 10s30s curves have exhibited limited flattening since the election. Since November 9, as 30y Treasury yields have increased 40bp, the 10s30s curve has flattened only 2bp (Figure 19). With all-in yields near 5% – a level where we believe insurance demand could pick up meaningfully – there is significant room for further tightening even if yields simply stabilize at current levels. Meanwhile, 20y bonds continue to trade at a healthy pickup to 30y securities, and we believe they continue to look attractive relative to the index at current valuations (*In the Long End, Meet in the Middle*, July 29, 2016).

In the front end of the curve, spreads continue to trade historically tight, especially higher-rated bonds. While 10y securities have tightened relative to 5y, 5s10s remain at the wide end of the post-crisis range and well wide of pre-crisis averages (Figure 20). 5y securities look especially tight on a ratio basis, trading at a multiple to the index of 0.8x, versus a 2003-06 average of nearly 1.0x. At the same time, we expect demand for short-dated paper to come under pressure: a sell-off in the front end of the Treasury curve could lead to retail outflows in credit, which tend to be more heavily concentrated in the front end. Furthermore, the decline in Treasury yields has pushed some investors to corporate bonds (particularly higher-rated parts of the market) as they look to meet yield bogeys. A sell-off in Treasuries could reverse the move. Ultimately, we believe that the historically rich valuations leave limited room for any upside in 5y-and-in bonds and recommend extending into 10y paper.

For 2017, we believe there is scope for 5s10s to flatten 5bp and for 10s30s to flatten 5bp as well – this implies 10bp of flattening in 5s30s.

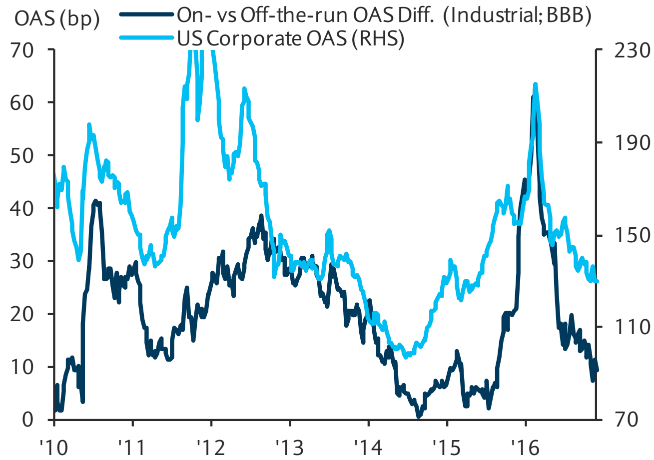
Liquid securities continue to look attractive

One dimension along which investors can improve their portfolio profiles is liquidity. As spreads have tightened, the pickup in carry for owning off-the-run securities has declined markedly, and we believe swaps out of illiquid securities and into on-the-run bonds for only slightly lower (or in some cases essentially flat) spread carry are attractive.

Figure 21 shows that since spreads began to tighten in February, off-the-run BBB industrial securities (issued more than a year ago) have compressed more than 50bp relative to on-the-runs (they are currently trading about 9bp wider on average). Historically, when BBB-rated industrial off-the-run securities have fallen within 15bp of otherwise comparable on-

FIGURE 21

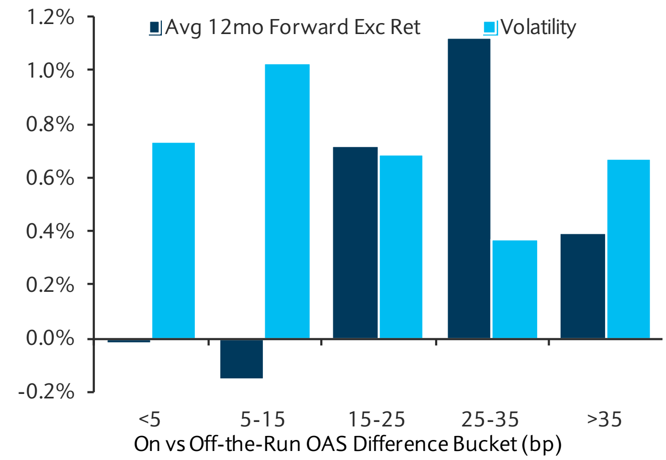
The on- versus off-the-run spread difference has compressed year-to-date



Note: On-the-run defined as less than one year from issuance. Source: Barclays Research

FIGURE 22

Relative outperformance and volatility of off-the-runs for different spread differentials



Note: For BBB Industrials, since 2009. On-the-run defined as less than one year from issuance. Source: Barclays Research

the-runs, they have tended to underperform significantly over the subsequent 12 months, particularly on a risk-adjusted basis (Figure 22). While turnover has improved marginally in 2016 after bottoming last year, we do not see any evidence that the turnover differential between on- and off-the-runs has compressed. Thus, we continue to believe that illiquid securities remain disproportionately exposed in a downside scenario, with limited upside if there is continued tightening.

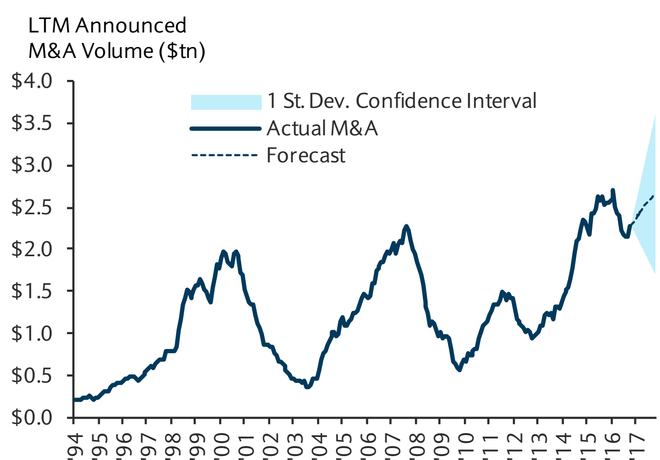
Outlook for M&A, demand, supply, and fallen angels

M&A may increase in 2017, but will be less of a contributor to issuance

A rush of mega-M&A announcements in October has caused a brief rebound in LTM M&A activity, which had slowed dramatically since 1Q16. However, despite the rebound, LTM M&A activity remains roughly $500bn below YE2015 peak levels. With VIX stabilizing at a sub-15 level for much of the year (especially since July), we believe that M&A volumes are set to

FIGURE 23

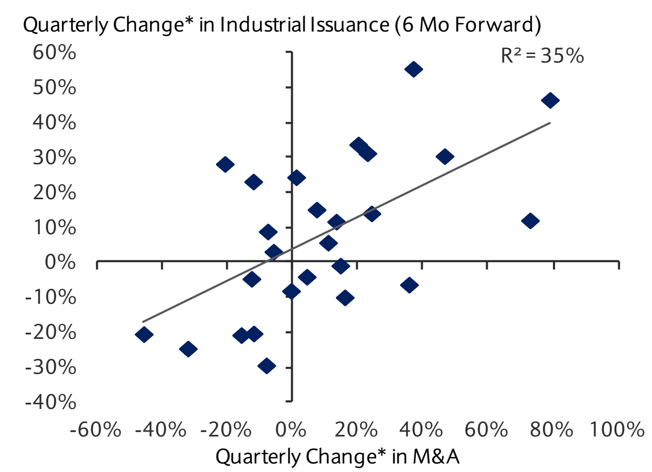
Our M&A model suggests 15% growth, but LTM M&A will likely end 2017 lower than 2015 peaks



Source: FactSet, Bloomberg, Barclays Research

FIGURE 24

Changes in M&A tend to affect supply six months later



Note: *Calculated as the change over the last four quarter average. Source: Bloomberg, Barclays Research increase next year. The view is informed by our updated model of aggregate M&A volumes, which forecasts next year's growth in M&A based on: the change in trailing 12-month average VIX (compared with the prior quarter); the spread between the S&P 500's average EBITDA/enterprise value and the US Corporate Index; and US GDP growth. At the moment, the model forecasts a 15% increase in M&A volume by 2017YE, to about $2.65trn (Figure 23).

While we expect merger/acquisition activity to rebound, we believe M&A-related corporate issuance will lag last year by about 15%. This is because the depressed M&A volumes for most of 2Q16 and 3Q16 – compared with the same period in 2015 – will likely begin to affect issuance totals only in 1H17. Indeed, as Figure 24 shows, issuance tends to come six to nine months after the M&A announcement date, meaning that M&A issuance totals are likely to be significantly lower in the first half of next year than they were this year.

That said, issuance totals will likely rebound in the second half if M&A activity rebounds as expected. Overall, however, we expect the full-year total to be lower.

Trends in investment grade ownership

Global macroeconomic developments and central bank policy continue to drive ownership trends in the US investment grade corporate market, as they did last year. Indeed, changes in the buyer base this year (Figure 25) have intensified the trends that have characterized ownership since 2012, with an increasing share of non-traditional buyers of investment grade credit – corporate treasuries, international investors, and mutual funds – continuing to displace more traditional buyers of credit – namely, US-domiciled insurance companies, pensions, and banks (Figure 26). Over the past year, a 3pp surge in "other" ownership, which we believe consists mostly of bonds held by foreign investors, offset declines of 2pp and 1pp in life insurance and US banks, respectively. There was also a marginal decline in pension fund ownership and a marginal increase in the share of bonds held by corporate treasuries, although these were insufficient to alter our ownership range estimates.

We believe the increase in the "other" category mostly reflects rising international ownership. Indeed, as central banks have continued to pursue monetary easing, particularly in Europe and Japan, government yields have plunged, particularly in the 10y and 30y portions of the curve,

FIGURE 25

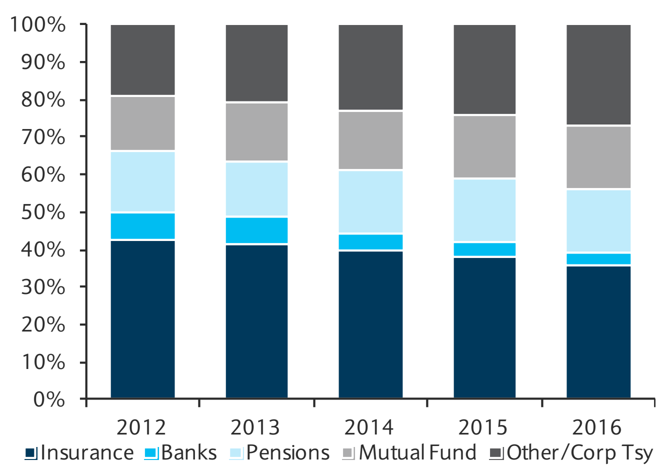
Estimates of ownership of investment grade corporate bonds (% of total universe)

Category	Current Est.*	2015 Est.*	Y/Y % Chg
Life Insurance	28-32%	30-34%	-2%
P&C Insurance	5-7%	5-7%	-
Pension Funds	16-18%	16-18%	-
Mutual Funds	16-18%	16-18%	-
Banks	2-4%	3-5%	-1%
Corporate Treasuries	5-7%	5-7%	-
Hedge Funds	1-3%	1-3%	-
Other**	17-21%	14-18%	+3 %

Note: Universe includes all 144A and SEC-registered corporate securities with >1y to maturity.*As of 2Q. **Other includes endowments, foundations, sovereign wealth funds, offshore funds, direct holdings by households, and bonds held by foreign buyers. Source: Bloomberg, Federal Reserve, Lipper/Thomson Reuters, SNL Financial, HFR, BarclaysHedge, Barclays Research

FIGURE 26

Shares of corporate treasuries, mutual funds, and foreign investors have risen as insurance and banks have declined



Note: Universe includes all 144A and SEC-registered corporate securities with >1y to maturity. Other includes endowments, foundations, sovereign wealth funds, offshore funds, direct holdings by households, and bonds held by foreign buyers. Source: Bloomberg, Federal Reserve, Lipper/Thomson Reuters, SNL Financial, HFR, BarclaysHedge, Barclays Research encouraging demand for USD corporates (*In Demand*, September 30, 2016). At the same time, low yields continue to depress US-domiciled insurance ownership. From June 30, 2015, to June 30 of this year, 25y+ high grade corporate yields fell from 5.1% to a post-crisis low of 4.0%, well below the 5% threshold we believe US insurance companies target for all-in yields. That said, given the increase in yields following the US election, we think that stability at current levels may begin to encourage insurance companies to increase buying of investment grade corporates. Meanwhile, corporate treasuries, which traditionally have invested cash balances in government debt, have been increasing exposure to A-rated (and above) short-dated credit over the past several years in search of better yields.

Overall, we believe demand will remain supportive in 2017, with buying by domestic insurance and pension funds supplemented by continued buying out of Asia and Europe.

Issuance forecast

We expect gross fixed-rate issuance in 2017 to be lower than in 2016 (Figure 27). We forecast $1,350bn of issuance (-10% y/y), which translates to about $625bn of net issuance (20% below this year's total). We project that financials issuance will decline to $380bn, driven by a small pickup in US bank issuance, but more than offset by a drop in Yankee financial issuance. Meanwhile, we expect non-financial issuance to decrease to $655bn (-12% y/y) and non-corporates to issue $315bn of investment grade fixed-rate debt (-14% y/y). Please see our *2017 Investment Grade Issuance Forecast* for more detail.

Investment grade new issue volumes have been on a record pace in 2016. Fixed-rate issuance (including non-corporates[1]) stands at $1,375bn,[2] $40bn ahead of last year's full-year total of $1,334bn, roughly on pace for a 15% increase y/y. Netting out redemptions, tenders, and matured debt results in $775bn of annualized net issuance, 25% above last year. As Figure 28 shows, most of the increase in issuance has come from Yankee banks, utilities, and non-corporates. In fact, the combined (annualized) issuance from US-domiciled industrials and financials in 2016 is exactly flat relative to 2015 (both at $760bn). In our view, there have been three main drivers of issuance: 1) M&A-related issuance has kept pace with last year's record total; 2) strong growth in Yankee bank issuance (+$54bn, +45% y/y) has more than offset lower domestic banks issuance (-$23bn, -16% y/y) to drive financials higher overall; and 3) non-corporate issuance has increased about $80bn y/y.

FIGURE 27

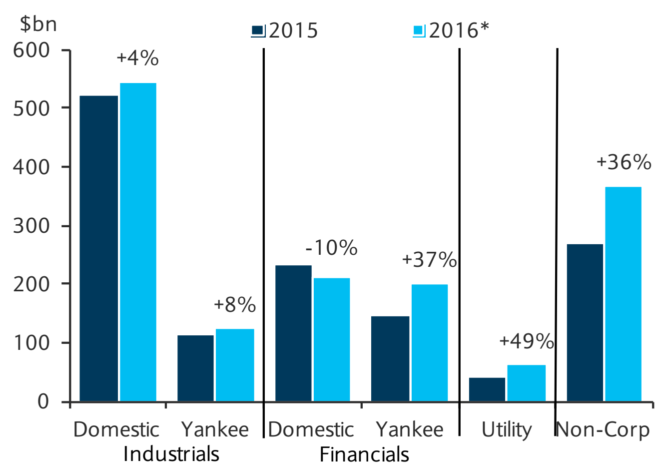
2017 investment grade fixed-rate issuance forecast ($bn)

	2016 Issuance*	2017 Gross Forecast	2017 Maturities	2017 Net Forecast
US Non-fins	608	530	212	318
Yankee Non-fins	133	125	80	45
Financials	413	380	228	152
Non-corporates	368	315	206	109
Total	1,522	1,350	726	624

Note: *2016 year-to-date issuance is annualized. All issuance data and forecasts are debt eligible for the Barclays US Credit or US 144A indices, unless otherwise specified. Source: Barclays Research

FIGURE 28

Year-over-year change in issuance by sector



Note: *2016 annualized as of October 31, 2016, adjusted for historical seasonal patterns. Source: Bloomberg Barclays Indices, Barclays Research

[1] Non-corporates include foreign USD-denominated sovereign, foreign agency/local government, taxable municipal, and supranational debt. These are in the Barclays US Credit Index, but are excluded from the US Corporate Index.
[2] As of November 18, 2016; only for fixed-rate bonds eligible to be in the Barclays US Credit or US 144A indices.

As in previous years, we forecast fixed rate non-financial US corporate issuance using two approaches: a top-down forecast using expectations for operating fundamentals and a bottom-up one informed by our fundamental analysts. We separately forecast issuance from financials, Yankee non-financials, and non-corporates, given the idiosyncratic factors affecting supply in those markets. Our top-down forecast for US non-financials is $545bn, while bottom-up it is $510bn. We project that domestic non-financial issuance will fall somewhere in between, at $530bn. Combined with our view for financials, Yankees, and non-corporates, our overall issuance forecast is $1,350bn, 11% lower than 2016 annualized issuance.

US non-financials

The key components of our forecast include near-term maturities, EBITDA growth, changes in leverage, M&A activity, and supply from first-time issuers. To begin, we assume that all of next year's $215bn of maturities will be refinanced. Next, we assume that companies finance debt to match expected EBITDA growth, which is roughly 6% y/y; companies would increase debt $180bn. Third, we believe leverage will decline roughly 0.1x, as many issuers that have recently increased leverage to finance M&A activity have cited leverage reduction targets and commodity-related issuers should experience fundamental improvement from the rebound in oil. This decline equates to a reduction in net issuance of $140bn. Fourth, we consider newly issued M&A, which we project will be 15% lower than last year, at $250bn. Finally, we forecast that first-time issuers will add $40bn of debt. Combining these factors results in a gross issuance forecast for US-domiciled non-financial firms of $545bn (10% lower than this year's annualized issuance) and a net issuance forecast of $305bn (20% lower than this year). Our sector-specific forecast is $510bn.

Yankee, financials, and non-corporates

- **US banks:** We forecast $145bn of fixed-rate issuance for US banks, up 6% from 2016. In total, US banks have $162bn of bonds maturing in 2017, up from 2016. Moreover, we expect select GSIBs to continue to be positive net issuers in 2017 in anticipation of meeting 2019 TLAC requirements. We expect regional bank issuance to be approximately flat in 2017, with a relatively equal mix of fixed-rate and FRN.

- **Non-bank financials**: In 2017, we expect issuance to decline roughly 6% y/y, to $75bn. It will be driven primarily by refinancing of maturities for REITs and insurance companies.

- **Yankee banks**: We expect Yankee bank issuance of $160bn, about 15% below this year's annualized amount of $191bn. We believe that the shift to USD holdco issuance will remain robust, but begin to decelerate and that Yankee banks issuance should revert more closely to 2014 and 2015 levels (both $140bn of issuance).

- **Yankee non-financials**: We expect the pace of new Yankee supply to slow next year, to $125bn (-6% y/y), driven by a decline in European, Canadian, and Japanese USD issuance, offset partially by higher EM issuance. EM redemptions are higher in 2017, and economic fundamentals have improved. Outside EM, maturities will be $5-10bn lower y/y.

- **Non-corporates**: We forecast non-corporate supply of $315bn, down 14% y/y, driven by lower supranational/agency issuance, offset partially by higher EM sovereign issuance.

Fallen angel volumes likely to decline

Weakness in commodities prices has bucked the five-year trend characterized by higher rising star than fallen angel volumes. About $80bn has been downgraded from investment grade to high yield, the highest level since the financial crisis. As with previous downgrade cycles, the most recent was triggered by a sector-specific shock, this time in commodities.

In our view, fallen angel volumes tend to be binary from year to year. Generally, "high downgrade volume" years coincide with a large macroeconomic and sector-specific shock: telecoms in 2001-02, autos in 2005, financials in 2008-09, and finally, commodity weakness this year. Outside of these years, fallen angel volumes are marginal, driven by idiosyncratic factors for specific issuers. We believe that next year will be a "low volume" year. While there is always the risk that an unforeseen shock will lead to weakness in a specific sector, the potential for fiscal stimulus under a Trump presidency, as well as moderate but stable economic fundamentals, should create the backdrop for a "low volume" year. Since the crisis, slightly less than 1% of the index in "low volume" years has fallen to high yield, which would equate to $45bn in fallen angel volumes for 2017, our baseline projection. This compares with a projection for $50bn of rising star volumes (see *high yield section*).

Credit derivatives outlook

CDX lags cash

CDX is on track to underperform cash excess returns for the first time since 2012 (Figure 29). But CDX did not perform poorly; in fact, for 2016 it tightened about 11bp on a roll-adjusted basis (as of November 25). The underperformance was more a function of cash spreads starting the year at historically wide levels (the 70th percentile since 2010), which made them well positioned to outperform.

For 2017, our base case is for carry-like returns for CDX, which means that CDX is likely to underperform cash again. That said, CDX is likely to perform better than cash in periods when investor concerns about market liquidity are elevated, similar to the first two months of this year (Figure 30). During periods of extended market weakness, investors appear willing to pay a premium for CDX in order to manage the liquidity in their portfolios. This is illustrated by the relative stability of net client positioning in CDX (Figure 31). Clients remained significantly long through CDX even as the market was selling off sharply at the start of the year. We expect clients to continue to favor CDX in periods when cash market liquidity becomes more challenging.

Watch the skew

Another way that the investor preference for liquidity manifested itself is in the CDX market-intrinsic basis, or skew (Figure 32). At the start of 2016, the skew reached historically wide

FIGURE 29

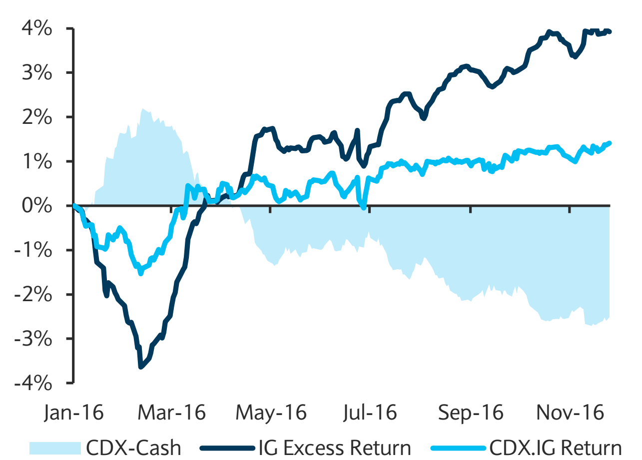
Annual investment grade corporate excess returns versus CDX returns

Year	IG Corp Excess	CDX Total	CDX-Cash
2010	2.3%	1.5%	-0.8%
2011	-3.7%	0.3%	4.0%
2012	7.3%	2.8%	-4.5%
2013	2.9%	3.3%	0.4%
2014	-0.5%	1.3%	1.8%
2015	-1.6%	-0.1%	1.5%
2016*	3.9%	1.4%	-2.5%

Note: *2016 returns as of November 25. Source: Bloomberg Barclays Indices, Barclays Research

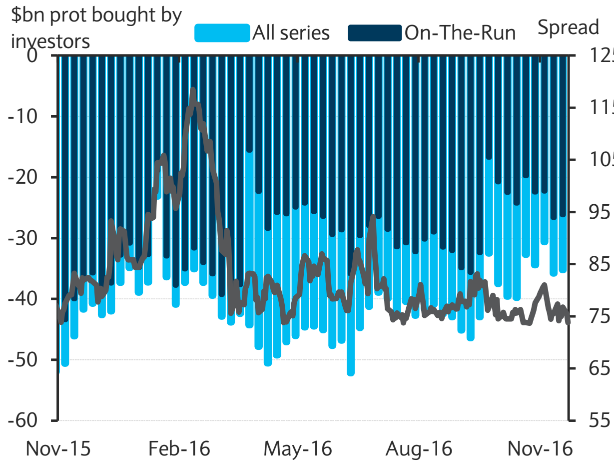
FIGURE 30

2016 investment grade corporate excess returns versus CDX.IG returns



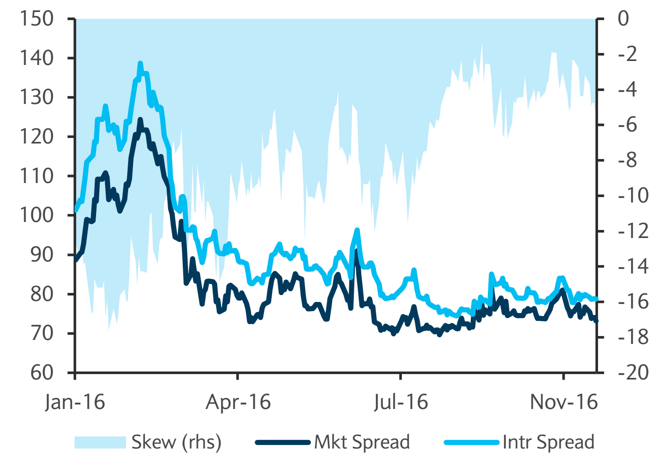
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 31
Net client positioning in CDX.IG



Source: DTCC, Barclays Research

FIGURE 32
CDX skew (market-intrinsic basis)

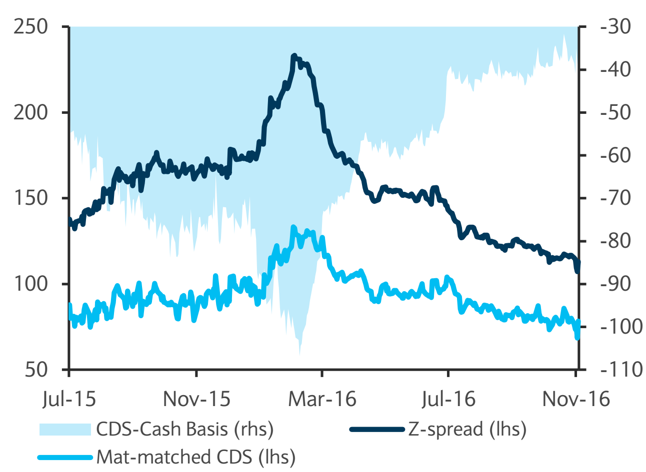


Source: Barclays Research

levels as the premium that investors were willing to pay for CDX caused the traded index to trade significantly rich to its underlying intrinsic value. As credit markets recovered, the skew tightened meaningfully as the liquidity premium declined.

The significant widening of the skew actually led to increased reverse arbitrage activity whereby investors were buying protection on CDX (the instrument trading rich) and selling protection on the underlying constituents (the instruments trading cheap) in order to capture the spread differential between the two (see *Dissecting the IG Index Arb*, January 29, 2016, for more details). And as the skew tightened, many of these accounts unwound their trades to realize profits. We believe that investors should continue to monitor the skew in order to take advantage of one of the true arbitrage opportunities in the credit market.

FIGURE 33
Matched CDS-cash basis



Source: Barclays Research

FIGURE 34
CDX.IG S27 constituent volume comparison: 2015 versus 2016

		Average Weekly Volume ($mn)		
Sector	**# of Tickers**	**Mar 2015 - Aug 2015**	**Mar 2016 - Aug 2016**	**y/y chg**
Basic Materials	8	101.5	65.6	-35.4%
Cons Goods	16	91.0	52.2	-42.6%
Cons Services	26	83.0	58.9	-29.0%
Energy	12	83.9	95.3	13.7%
Financials	19	87.0	60.1	-30.9%
Healthcare	11	68.2	40.2	-41.1%
Industrials	18	84.7	53.3	-37.1%
Technology	7	94.1	70.6	-25.0%
Telco Services	2	154.7	128.7	-16.8%
Utilities	6	51.7	28.2	-45.5%
Average		**85.1**	**60.0**	**-29.5%**

Source: DTCC, Barclays Research

Basis says: Hedge with cash

One of the implications of the significant outperformance of cash in 2016 has been the large move tighter in the CDS-cash basis (Figure 33). The basis reached its widest point at the height of the sell-off in the first quarter, but has since tightened significantly and is now at the tights of the past year. The sizable moves in the basis have raised concerns that the basis no longer works as expected. We believe that the moves in the basis are a function of the demand for liquid instruments (which manifests itself in CDX positioning and the skew), changes in dealer liquidity, and the decline in single-name CDS activity. We believe these three factors, taken together, make it more likely that cash will underperform derivatives in periods when liquidity concerns are elevated. As a result, for investors that are concerned about a repeat of the late 2015-early 2016 sell-off, we think it makes sense to look for opportunities to unwind single-name CDS shorts and roll them into cash shorts in cases where the basis is now flat to positive. See *Basis Says: Hedge with Cash*, November 4, 2016, for more details.

Derivatives liquidity remains mixed

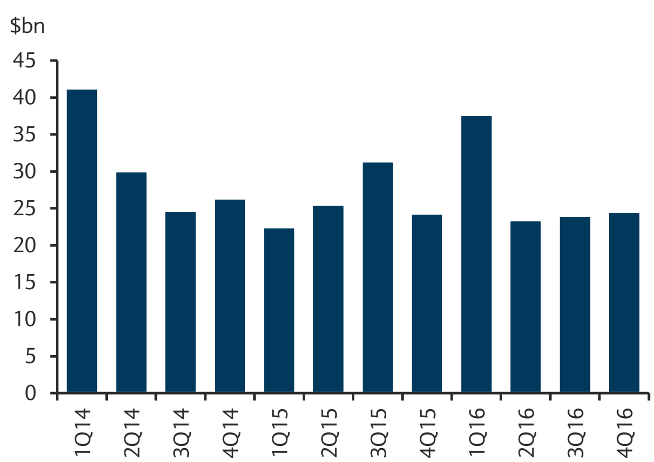
Derivatives liquidity remains mixed, with index activity increasing and single-name CDS volumes decreasing in 2016. Index activity benefited from elevated volatility at the start of the year, and average weekly on-the-run volumes are about 10% above 2015 levels. Single-name volumes also benefited from the rise in volatility in the first quarter, but since then, volumes have declined. Looking at the volume breakdown by sector in Figure 34, one positive takeaway is that average volumes in the energy sector actually increased versus the year-ago period. To us, this is a reassuring sign that sectors with sufficient volatility should see a pickup in CDS activity. Two factors could help single-name activity in 2017: the continued push to get more investors to clear their single-name trades and the growth in skew trading. A more concerted move to clearing would improve the ability of dealers to make markets in CDS from a capital perspective, and a pickup in skew trading should provide additional liquidity to the single-name CDS market.

Consider your options

One part of the credit derivatives market that continues to garner a high level of interest is index options. While activity levels slowed after the first quarter (Figure 35), we believe much of this is attributable to the relentlessness of the credit rally for much of the year. As

FIGURE 35

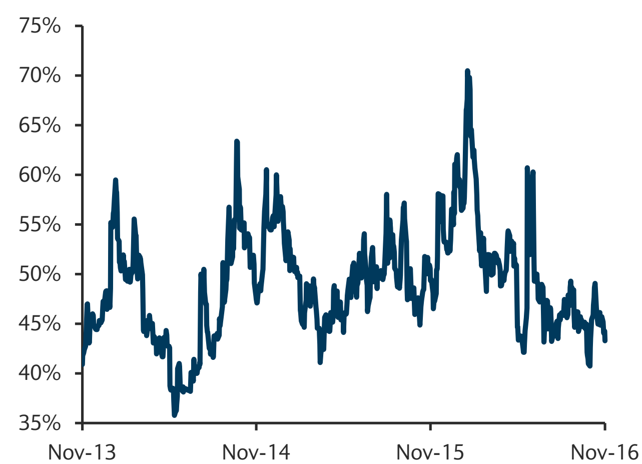
CDX.IG options: Average weekly volume by quarter



Note: 4Q16 data as of November 16. The sizes of capped SDR trades are adjusted based on anecdotal observations of actual trades. Source: Bloomberg SDR, Barclays Research

FIGURE 36

CDX.IG 3m ATM implied volatility



Source: Barclays Research

many investors struggled to keep up with their benchmarks, they became less willing to spend money on hedges. At the same time, there was less hedging from bank loan desks because of the relatively light pipeline of loan deals coming to market. The lack of a bid for hedges caused implied volatilities to decline to historically low levels (Figure 36).

Looking ahead to 2017, we believe the demand for hedges could increase as investors look to take advantage of the low level of implied volatility amid heightened policy uncertainty. Buying short-dated payers outright or longer-dated payer spreads could be attractive.

Our base case for CDX is carry-like returns

CDX has tended to trade more as a macro product and less as a sum of its parts. Although the index could outperform cash if the market sells off again, the current index level is not particularly attractive in a historical context. The current spread level of 73bp (as of November 25) puts the index at the 29th percentile since 2010. But while valuations are toward the tighter end of the range, they could be supported by a relatively benign macro environment. The big question is whether we see an uptick in policy uncertainty – both fiscal and monetary. Assuming that the macro environment remains stable, our base case is for carry-like returns in 2017.

US HIGH YIELD STRATEGY

Respite from economic concerns, for now

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- **We forecast excess returns of 5.5-6.5% and total returns of 7-8% for the US High Yield Index in 2017. We believe that expansionary fiscal policy will more than offset the drag of protectionist trade policy, leading to a net boost in domestic consumption and an extension of the economic cycle.**

- **Per our estimates, the issuer-weighted default rate will be 3-4% in 2017, down from the current 7.5%. We believe the par-weighted rate will likewise drop from 4.1% to 2-3%. As the commodity credit default wave abates, we expect the spread in bond and loan default rates to collapse, with loans experiencing a 1.5-2.5% default rate on both an issuer-weighted and par-weighted basis.**

- **The lower quality part of the market offers compelling value at current levels, as issuers benefit from higher inflation and more open primary market conditions. We forecast excess returns of approximately 10% for CCCs, 6% for Bs and 4% for BBs. While we expect higher beta credits to outperform in absolute terms, this part of the credit spectrum may be more sensitive to the president-elect's actual agenda and statements. As a result, higher-quality high yield may continue to perform best on a risk-adjusted basis.**

- **Our rates strategists forecast significant increases in front-end rates and considerable flattening in the Treasury curve. With spreads currently accounting for 70% of the yield to worst on the index, we believe that there is ample cushion to offset an increase in rates. This outcome should benefit higher beta high yield, while longer duration bonds such as recently issued BB paper may suffer.**

- **We forecast $210-230bn in high yield gross supply for 2017, approximately flat relative to the annualized 2016 total of $216bn. Per our estimates, financing and corporate investment activity will increase slightly, but refinancing activity could slow if rates continue to increase.**

- **We believe that rating agencies will re-adjust their outlooks in light of improving fundamentals and a stable macro backdrop. We forecast $50bn in rising star volumes in 2017 and anticipate that upgrade momentum will contribute to a modest net decrease of $5bn in index par outstanding.**

- **After significantly underperforming in 2016, we think CDX is well-positioned for better relative performance in 2017, particularly as the factors that hindered performance this year – basis, skew, and rates – could all benefit the index next year. At the single-name level, we believe the significant tightening of the CDS-cash basis presents an opportunity to rotate shorts from CDS to cash in credits where the basis is now flat or positive.**

Overview

2016 recap – like trying to ride a bucking bull

High yield has produced significantly higher returns than most predicted this year. Through Friday, November 25, the Bloomberg Barclays US High Yield Index had total returns of 14.7%, outperforming the S&P 500 by 4.2% (Figure 1). Higher beta high yield was the big outperformer, with CCC-rated bonds returning an impressive 26.7%, B-rated bonds returning 13.2%, and BB-rated bonds producing 11.2%.

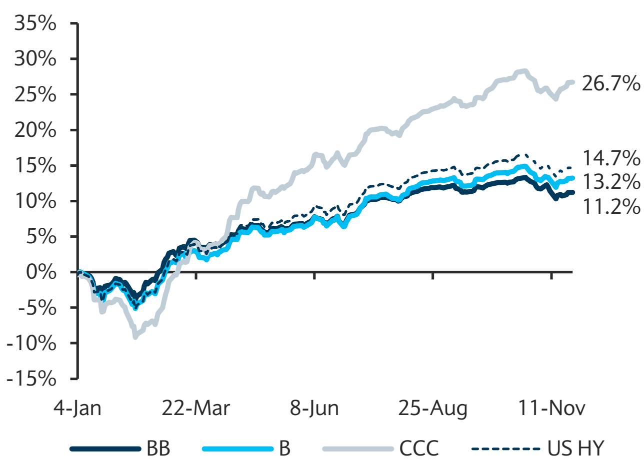
The rally was broad-based across sectors, but the rebound in oil markets was certainly the driving force in the first half of the year. Coming into 2016, WTI was still making new lows, and by mid February it had fallen to just above $26/bbl. Commodity sectors experienced a massive overhaul as a result, with energy credits defaulting on nearly $30bn in bonds this year, and metals & mining credits defaulting on an additional $7.9bn (Figure 2). At the higher end of the quality spectrum, high yield inherited $48bn in energy and metals & mining sector debt from the investment grade market as fallen angels.

This massive flux of names in the commodity universe, combined with a sharp reversal in oil markets in mid February, made it nearly impossible to keep up with the index. The energy sector alone has returned more than 32% thus far this year. Fallen angels, more broadly, have returned 59%, and contributed about 1.8% to the total return on the overall index, but were very difficult to own in sufficient size in March and April (Figure 3). The average dedicated high yield mutual fund underperformed the index by an eye-opening 359bp, although nearly 70% made it into double-digit territory (Figure 4).

The correlation between high yield and oil weakened in June as oil sold off but continued foreign flows into US credit helped stabilize high yield and even drive spreads and yields lower. While the flows have persisted even recently, we believe the selloff in US rates has been offset by strength in the US dollar, neutralizing the yield advantage of US high yield on an FX-hedged basis. Uncertainty surrounding the new government's policy agenda may also slow foreign allocations to US assets.

FIGURE 1

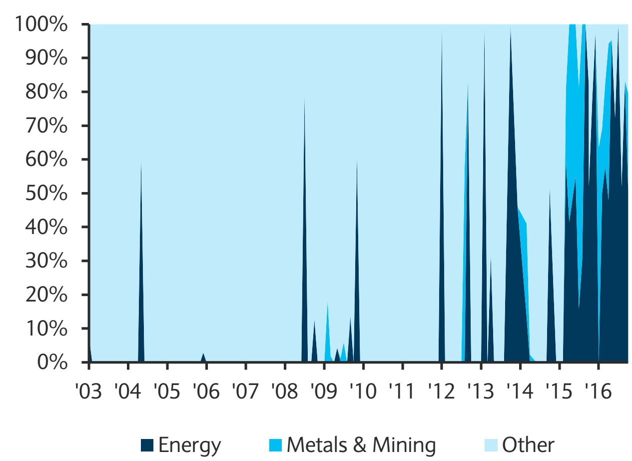
Year-to-date total returns by credit quality



Source: Bloomberg

FIGURE 2

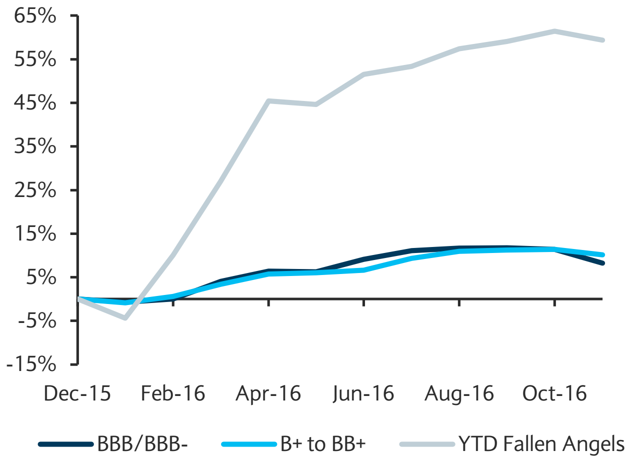
Breakdown of initial bond defaults by par amount



Source: Moody's

FIGURE 3

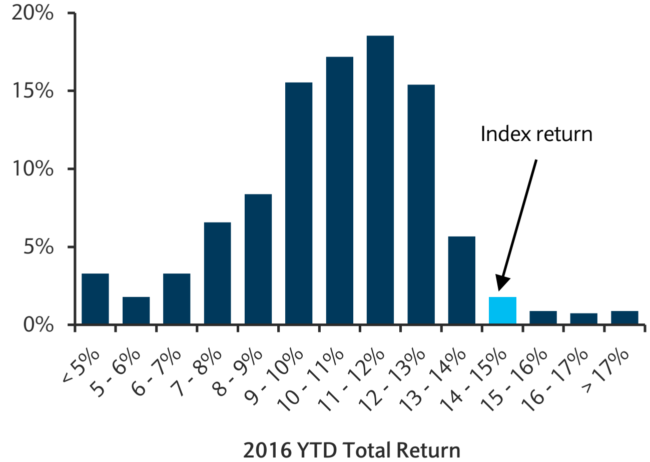
Year-to-date fallen angel total returns



Note: BBB/BBB- and B+ to BB+ returns exclude the YTD fallen angels.
Source: Bloomberg

FIGURE 4

Distribution of YTD returns for HY mutual funds and ETFs



Source: Lipper, Bloomberg

2017 returns forecast – a late-cycle beta rally

We believe 2017 will be another solid performance year for US high yield, and that higher beta will outperform once again. Our view is predicated on an expansionary fiscal policy that more than offsets the drag of a protectionist trade policy, leading to a net boost in domestic consumption and an extension of the economic cycle. In *There's a new tariff in town*, our US economics team estimates a 50bp drag on GDP growth from restrictive trade policies, but forecasts real GDP growth of 2.2% in 2017 (up from 1.6% in 2016) and 2.5% in 2018, as government spending and tax cuts boost consumption growth. Further, they foresee a significant increase in inflation, with PCE and core CPI both exceeding 2% next year (2.2% and 2.6%, respectively) and the year after (2.5% and 2.9%).

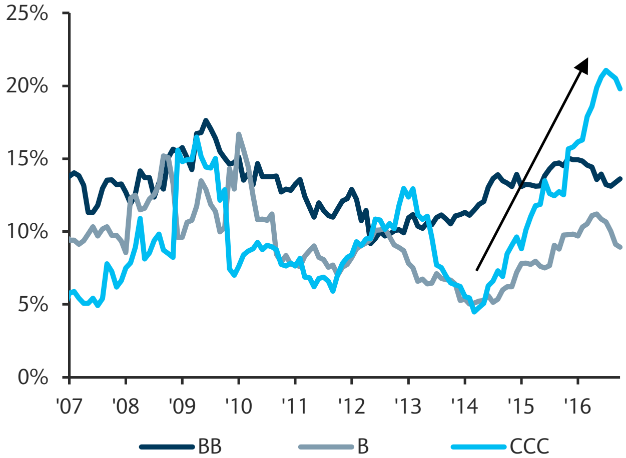
Higher consumption, higher GDP growth, and higher inflation would all be positive developments for the high yield market. The first two improve the bottom line for companies and tend to make the outlook both clearer and more positive. They also tend to be correlated to primary market strength, or at least a lack of extended primary market closures, which may afford stressed and distressed borrowers a chance to kick the can down the road. This is particularly important given that CCC-rated issuers currently have significant front-end debt in need of refinancing (Figure 5). Meanwhile, inflation is welcomed by highly leveraged borrowers, since it decreases the real burden of their debt load.

Given this expectation of accelerated economic growth and higher inflation, we believe high yield valuations will be well supported in 2017. That said, the benefits will accrue most to the lower-quality part of the market, in our view. Fuelled by government borrowing, the expansion could lead rates higher, which would in turn be negative for longer duration bonds, and BB-rated bonds have the highest empirical duration. If US rates do in fact continue to increase, the US dollar should continue to strengthen, which will make US high yield assets less compelling for global buyers on a hedged basis; the global technical has been most supportive of higher quality high yield, and could weaken not only as a result of a stronger dollar, but also in response to an unpredictable US president.

Valuations also favor higher beta. The ratio of CCC-rated yield to the index is currently 1.7, which is high compared to a 10-year average of 1.4; the same ratio for BB-rated bonds is 0.75, low versus a 10-year average of 0.8 (Figure 6). The cheapness of CCCs and richness of BBs is admittedly not new. However, valuations were not enough of a reason to advocate

FIGURE 5

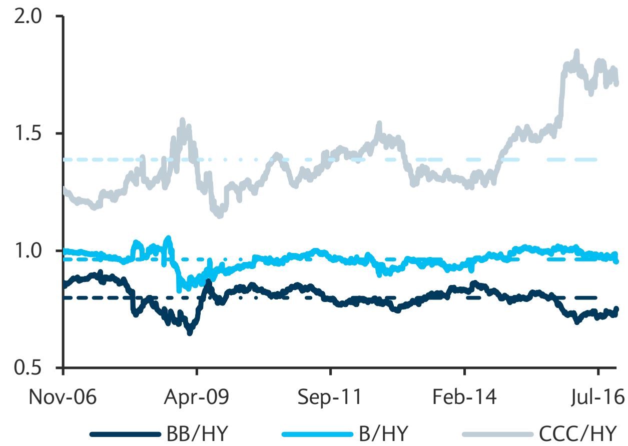
Percent of maturities due in 3 years or less



Source: Bloomberg

FIGURE 6

Yield to worst ratios (excluding commodity sectors)



Note: Excludes the energy and metals & mining sectors. Source: Bloomberg

being overweight higher beta high yield in the recent past, in our view, particularly this late in the economic cycle. Indeed, coming into 2016, the higher-quality part of the market was already very rich relative to the index in ratio terms. At the time, oil markets were making new lows and weakening global growth was threatening to drag US growth lower as well. In that context, our call for a quality barbell stemmed from a willingness to forego a chance at much higher returns (by being overweight beta) in exchange for a better convexity profile. Today, we are anticipating massive stimulus from the incoming administration, combining tax cuts and enormous investments in infrastructure. While the higher-beta part of the market remains slightly more exposed to commodities than the overall market, we do not expect commodities to be the key driver of performance next year. Instead, we believe Trump's ability to enact his economic agenda will be the principal source of volatility. The US president-elect could certainly change course once inaugurated, but our base case is aligned with the idea that he will follow through on the policy agenda items most prominent in his campaign.

We forecast 2017 excess returns of 5.5-6.5% for the index overall, and closer to 4% (BB), 6% (B), and 10% (CCC) for the different quality baskets (Figure 7). Using our rates strategists' 4Q17 forecasts for changes in Treasury rates across the curve, along with the key-rate durations of the US HY market, we calculate that rates will contribute an additional 1.5% to total returns, taking the index total return to 7-8%. However, our base case is relatively bullish on high yield risk, and we do see downside risk to total returns as Treasuries can sell off even further in a risk-on environment.

Much of the outperformance of beta in 2016 can be attributed to commodity sector credits. However, even excluding energy and metals & mining, 2016 was still very much a "risk-on" year. Excluding commodities, double-Bs have returned 7.3% this year, while single-Bs returned 10.1% and triple-Cs returned 19.1%. Our view that beta will continue to outperform in 2017 is somewhat sensitive to the price of commodities, but not to the same extent as it was in 2016. The universe of commodity credits in today's high yield market is more heavily skewed towards higher quality than it was in the beginning of the year, with many more fallen angels and fewer distressed names, and should therefore trade with a lower beta to commodities.

We believe the absolute performance of higher beta will be more sensitive to Trump's actual agenda and statements while in office. Given the GOP's hold on all branches of government, our base case is that he will be able to make significant progress on his key agenda items.

That said, his protectionist stance could cause tensions with the US's economic partners; his spending plan may be obstructed by fiscal hawks; his tax cuts may anger swaths of the population that voted for him; the list goes on. Thus, while high beta should perform best in absolute terms, we believe higher-quality high yield will continue to reign supreme in risk-adjusted terms.

FIGURE 7

Total and excess returns calculations for the US HY Index, by quality

	US HY	BB	B	CCC	CC-C
Weights and measures					
Par ($bn)	1,349	597	501	232	19
Market value %	100%	46.0%	37.5%	15.5%	0.8%
Duration (years)	4.22	4.56	4.11	3.57	2.67
Carry and spread change [a]					
Current US HY OAS (bp)	459	295	431	902	2,545
y/y change (bp)	(67)	(25)	(61)	(202)	(5)
Ending OAS (bp)	**392**	**270**	**370**	**700**	**2,540**
Carry and spread change	7.4%	4.1%	6.8%	16.2%	25.6%
Default losses [b]					
Default rate	2.4%[1]	0.0%	1.0%	10.0%	20.0%
Recovery rate		50.0%	50.0%	30.0%	20.0%
Loss-given default[2]		52.1	49.4	58.3	37.2
Default losses	(1.5%)	0.0%	(0.5%)	(6.5%)	(12.6%)
Duration-neutral Treasuries[3] [c]					
Carry return (%)	1.9%	1.9%	1.8%	1.7%	1.6%
Price return (%)	(0.5%)	(0.4%)	(0.4%)	(0.5%)	(0.4%)
Treasury return (%)	1.4%	1.5%	1.4%	1.2%	1.2%
US HY Returns					
Excess return [a+b]	**5.9%**	**4.1%**	**6.3%**	**9.8%**	**13.0%**
Total return [a+b+c]	**7.4%**	**5.6%**	**7.7%**	**11.0%**	**14.2%**
Other metrics					
Current US HY YTW	6.6%	4.9%	6.3%	11.1%	29.8%
y/y change (bp)	(61)	(18)	(54)	(195)	2
Ending YTW	**6.0%**	**4.7%**	**5.8%**	**9.2%**	**29.8%**
Current US HY price ($)	$98.1	$102.1	$99.4	$88.3	$57.2
y/y change ($)	$2.4	$0.8	$2.2	$7.0	$0.0
Ending price ($)	**$100.5**	**$103.0**	**$101.6**	**$95.3**	**$57.1**

1. Par-weighted. 2. Loss given default calculated as the difference between the current average price and the assumed recovery rate. 3. Based on rates strategy forecasts and index key-rate durations. Source: Bloomberg, Barclays Research

The CCC part of the market is, by definition, highly idiosyncratic, and complicated situations demand additional attention. That said, the largest names in the CCC category are diverse and not particularly heavy on commodities exposure. Figure 8 lists the top 20 issuers sorted by their contribution to the CCC index yield; the list accounts for 37% of the par outstanding in the CCC index. Eighty percent of these issuers have a maturity due in the next three years, and we believe that a relatively open primary market will benefit those capital structures in 2017. Several have bonds that our fundamental analysts rate Underweight, but most are either Overweight, Market Weight, or do not carry one of those three ratings. We believe that investors who can bear the volatility of higher beta credit (including CCC but also low single-B rated bonds) will be rewarded with higher absolute returns next year.

FIGURE 8

Top 20 issuers ranked by their contribution to the CCC index yield-to-worst

Ticker	Sector	CCC Amount ($bn)	Has a Sub-3y Maturity	YTW (%)	OAS (bp)	Bond Ratings under Ticker
IHRT	Media Entertain.	6.3	Yes	21.29	1,855	Market Weight
INTEL	Cable Satellite	6.9	Yes	17.57	1,494	Market Weight, Underweight
CYH	Healthcare	6.1	Yes	13.50	1,146	n/a
THC	Healthcare	7.7	Yes	7.13	534	n/a
WFT	Oil Field Services	5.8	Yes	8.72	648	Underweight
AVYA	Technology	2.7	Yes	27.38	2,400	Market Weight
HXN	Chemicals	3.3	Yes	12.87	1,111	Overweight, Market Weight
SGMS	Gaming	3.0	Yes	9.80	786	Market Weight, Overweight
EPENEG	Independent	2.4	No	14.91	1,263	n/a
CLE	Retailers	1.3	Yes	46.54	4,065	Market Weight
ALGSCO	Industrial Other	1.8	Yes	19.61	1,745	n/a
GENONE	Electric	1.8	Yes	20.55	1,786	n/a
BMC	Technology	2.7	Yes	11.21	938	n/a
KCI	Healthcare	2.4	Yes	11.17	914	n/a
CRC	Independent	2.3	No	14.72	1,226	n/a
ARGID	Packaging	3.7	Yes	6.19	410	n/a
CHK	Independent	3.2	Yes	8.10	612	Market Weight, Underweight
MEGCN	Independent	2.6	No	10.41	821	n/a
CXRCN	Pharmaceuticals	1.5	No	24.11	2,074	n/a

Source: Barclays Research

Default risk – going down!

Defaults picked up materially in 2016, with the vast majority of defaulted credits coming in commodity-related sectors. As of the end of October, the trailing 12-month issuer-weighted default rate for the US speculative grade universe tracked by Moody's (including both bond and loan issuers) had reached 5.6%, up from 2.8% in the prior year. While the overall speculative grade default rate is the most oft-cited statistic, the default experience for loan issuers and bond issuers has been very different this year. The trailing 12-month default rate for US bond issuers is 7.5% as of October, while it is a much more modest 3.2% for loan issuers.[3]

We forecast a significant drop in high yield bond defaults in 2017. Combining our top-down econometric model with a bottom-up review of credits in the high yield market, we foresee the issuer-weighted bond default rate dropping from 7.5% to 3-4% in 2017; we believe the par-weighted rate will likewise drop from 4.1% to 2.0-3.0%. While commodities were the focal point in 2014-16, defaults will be spread more broadly across sectors in 2017.

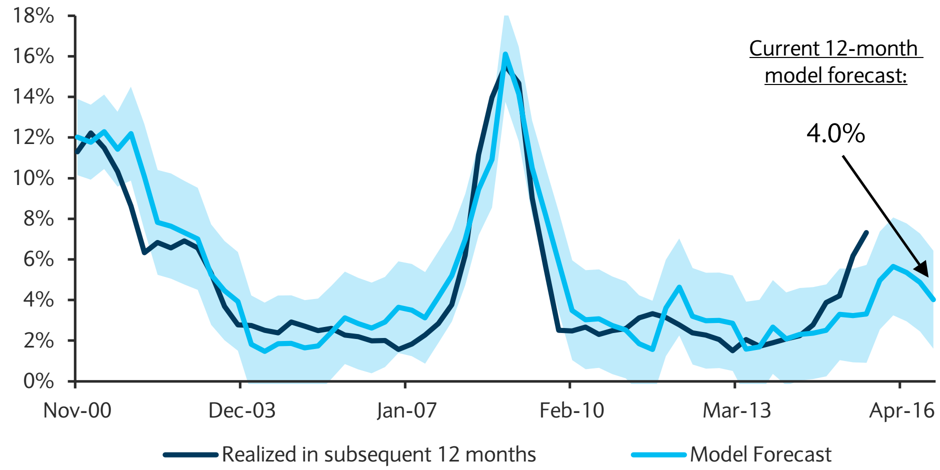
Our econometric model, which is one piece of our ultimate forecast, suggests a 4.0% issuer-weighted default rate (Figure 9). The model is based on the Fed's Senior Loan Officer Opinion Survey, which has recently shown modest tightening in lending standards for commercial and industrial borrowers, and the percentage of the US HY index that is trading with a spread greater than 1,000bp, which has dropped every month since February 2016. Meanwhile, a review of the issuers in the Bloomberg Barclays US High Yield Index in collaboration with our fundamental analysts, leads to an even lower issuer default rate of 2.9%. The current crop of

[3] The loan-issuer and bond-issuer universes both include credits that have both loans and bonds.

distressed issuers with a material probability of defaulting in 2017 includes some familiar names, with retailers standing out somewhat in terms of issuer count, and the aerospace/defense sector also well-represented.

FIGURE 9

Current econometric model forecast vs. realized issuer-weighted default rate



Note: Shaded area represents 90% confidence envelope. Source: Federal Reserve, Moody's, Barclays Research

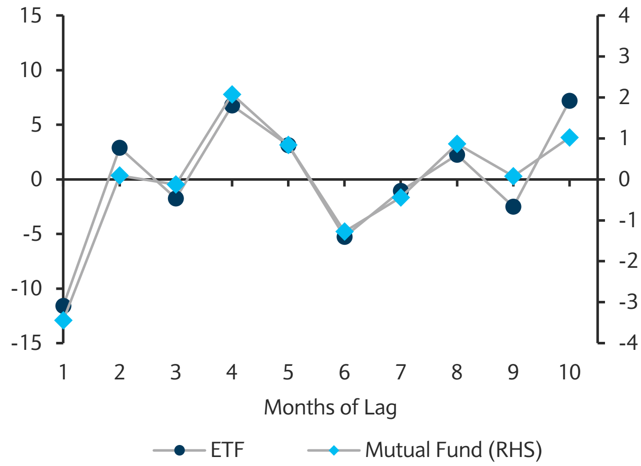
Duration risk – take a hike

Our rates strategists forecast significant increases in front-end rates, and considerable flattening in the Treasury curve out to 10 years. The moves at the 5y and 10y points are relatively modest, at 6bp and 4bp, respectively, but they expect 2y rates to increase 38bp as markets price in a more aggressive hiking cycle and an increased chance of overshoot on the Fed's 2% inflation target. Rates markets may be in somewhat of a holding pattern until Trump takes office and we get more clarity on the magnitude of tax cuts and fiscal stimulus, notwithstanding price action around the December FOMC meeting. Our base case, however, is that he will pursue economic policies that should promote significant consumption growth and lead to inflation. In that scenario, we see risk to the upside on our rates team's forecasts, which could wipe out the expected bump in total returns from rates, or even cause the rates component of returns to turn negative.

High yield has a different relationship with rates over short- and medium-term horizons. Over the short term, high yield spreads can become positively correlated with rates, especially during sharper moves. Over the medium and longer term, spreads typically absorb the near entirety of rates moves, dulling or even eliminating duration risk; the higher the spread, the more easily a backup in rates is absorbed, ie, BB-rated bonds have lower empirical durations than their calculated duration, while CCC-rated bonds can even exhibit negative duration (rates go up, and CCC bond prices go up). The short- versus medium-term effects reflect shifts in the buyer base, in our view. When Treasuries back up quickly, high yield mutual funds and ETFs tend to see significant outflows (while loan mutual funds and ETFs get inflows). The one-month lagged relationship suggests that a 50bp increase in 5y Treasuries would lead to 5.7% in outflows from ETFs and 1.7% in outflows from mutual funds (Figure 10). The retail outflows are short-lived, though. The relationship is strong at a one-month lag, but becomes insignificant for greater lags. Other owners of high yield, such as pensions and other institutions with long investment horizons, end up increasing their ownership at these moments, capturing the liquidity premium from retail sellers. Then, over longer horizons, the economic fundamentals kick in. Higher rates are typically a response to strong economic growth, which benefits highly leveraged credits. Spreads tighten, and the negative correlation between risky assets and risk-free Treasuries is re-established.

FIGURE 10

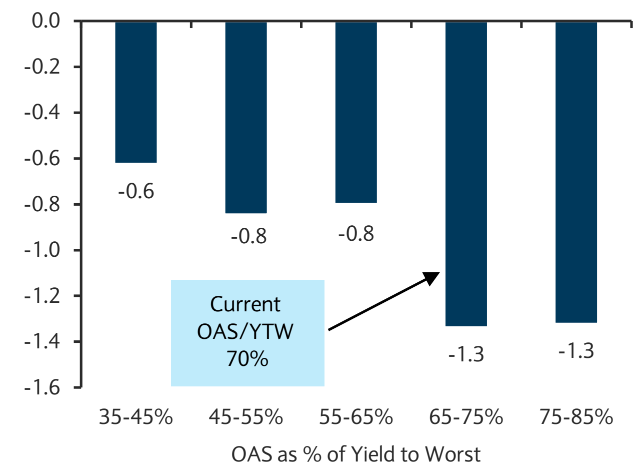
Beta of HY fund flows (bp) to changes in 5y Treasury (bp)



Note: Monthly data since January 2013. Source: Bloomberg, Barclays Research

FIGURE 11

Beta of HY OAS change to 5y Tsy change vs. spread cushion



Note: Months of rising rates from June 1993 to November 2016.
Source: Bloomberg, Barclays Research

We expect 2017 to follow that playbook, especially if our base case of highly stimulative fiscal policy ensues. Rate shocks will govern fund flows, which will govern short-term price action, but for the full year, high yield spread will absorb most of the volatility. Currently, spread accounts for approximately 70% of the yield to worst on the index. History suggests that that is ample to offset rate increases (Figure 11). Higher beta high yield will benefit the most in this scenario with its wider spread. Longer duration bonds, such as recently issued BB paper, may suffer, although periods of higher rates volatility could be used as an opportunity to add high quality exposure at a discount. Given our rates team's expectations for large front-end rates increases and the potential for rates-induced outflows from retail funds, short-duration bonds could be volatile next year. Short-duration paper is often used as a cash substitute by retail funds, and if the bonds are short-duration because of call constraints, they could easily extend if rates jump. However, since we expect the primary market to be relatively open next year, we would see those periods as opportunities to add lower risk exposure at higher yields.

Rising stars and fallen angels

Rising star volumes have been contained in what has been a year dominated by fallen angels. Approximately $43bn has been upgraded from the high yield index year-to-date, which when annualized is slightly higher than our previous forecast for $40bn through the end of the year. Continuing a trend set in previous years, upgrades to investment grade were driven by idiosyncratic factors, rather than the macro-driven ones that often propel fallen angel turnover.

Going forward, we see potential for upward ratings momentum in light of improving fundamentals and a stable macro backdrop, which may benefit from President-elect Trump's fiscal stimulus agenda. In our view, the rising star mix will be more heavily tilted towards commodities credits as rating agencies gradually relax their verdicts and incorporate a higher WTI in their price decks. Indeed, Moody's has already revised its outlook for the Energy & Pipelines sector from Stable to Positive on November 15. The agency noted that it is more likely to do the same for E&P issuers, which could result in single notch upgrades for credits such as CXO, NFX and CQP according to our energy analyst (Please see *Macro Takes the Wheel* and *Tactical Trumps Thematic*). Factoring in the higher likelihood of rising star volumes among energy issuers, we arrive at a total forecast of $50bn in rising star volumes for 2017.

While a small, but meaningful, portion of high yield index par growth was explained by larger fallen angel volumes, we believe that ratings migrations activity will be more balanced in 2017. Given our forecast of $45bn in fallen angel volumes, we anticipate that upgrade momentum will contribute to a net decrease in the par amount of the index by $5bn.

Technicals: Cruising along a low supply, high demand tide

Demand

Developments in the global demand technical have had meaningful implications for both the high yield ownership structure and valuations. While retail demand has historically been a key driver of high yield performance, foreign institutional demand claimed the spotlight this year. In particular, we believe that the largest portion of the growth in institutional demand can be attributed to an increase in high yield ownership by separately managed accounts as yield-starved investors globally have moved further along the risk curve.

Domestic high yield fund flows have gyrated throughout the past 12 months. Outflows from last December continued into 2016, but were subsequently recovered when the largest infusion into high yield funds was recorded in March. Late into the year we again stood witness to a shift in investor sentiment as November had registered the fourth largest monthly redemption ever through the 23rd, according to Lipper. Indeed, as a result of net neutral flows and minimal growth in the size of the market, the share of the high yield market owned by dedicated US-domiciled high yield mutual funds and ETFs has held steady at 18-21% (Figure 12). Other sources of retail demand – the larger taxable fund universe of balanced, flexible, and investment grade strategies, offshore funds, global high yield funds and currency overlay Toshin funds – saw negligible change in its ownership structure (for more details please see: *Institutional Search for Higher Yield*, 28 October 2016).

Though performance of the broader high yield market typically hinges on retail appetite, year-to-date returns have remained robust at more than 14.7%, though lacking technical support from the retail buyer base (Figure 13). This anomaly can partly be explained by trends in institutional demand. Indeed, foreign institutional investor ownership of the US high yield market has increased considerably. We believe that much of this growth has come from separately managed accounts, which per our estimates has increased its ownership share of the high yield market by more than 2% y/y. The search for yield has extended to US insurance companies, which currently own 11-14% of the high yield market

FIGURE 12

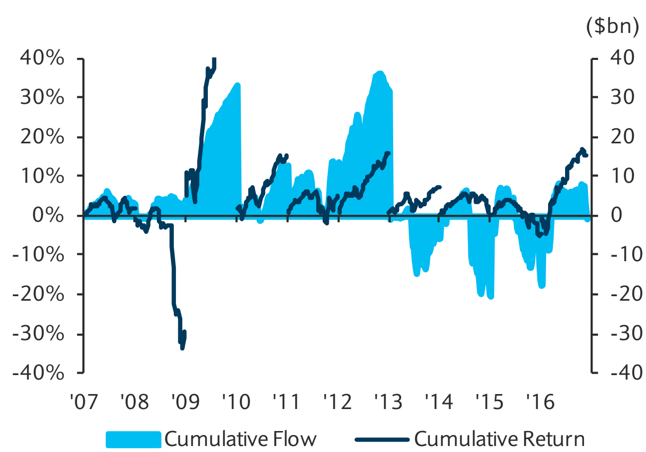
Estimated share of US high yield bond holdings

Category	2016	2015	y/y change
HY Mutual Funds and ETFs	18-21%	18-21%	0%
IG / Income Funds	14-17%	14-17%	0%
Offshore US HY Funds	3-6%	4-7%	-1%
Global HY Funds	2-4%	3-5%	-1%
Pension Funds / Sep Accts	20-24%	18-22%	2%
Insurance Portfolios	11-14%	10-13%	1%
Hedge Funds	11-17%	12-18%	-1%
Other	6-10%	6-10%	0%

Source: Lipper, Bloomberg, EPFR, HFR, CEF, Credit Flux, Federal Reserve, Bloomberg Barclays Indices, Barclays Research

FIGURE 13

Cumulative high yield fund flow and returns



Note: Cumulative returns measured since December 2015. Source: Lipper, Bloomberg Barclays Indices

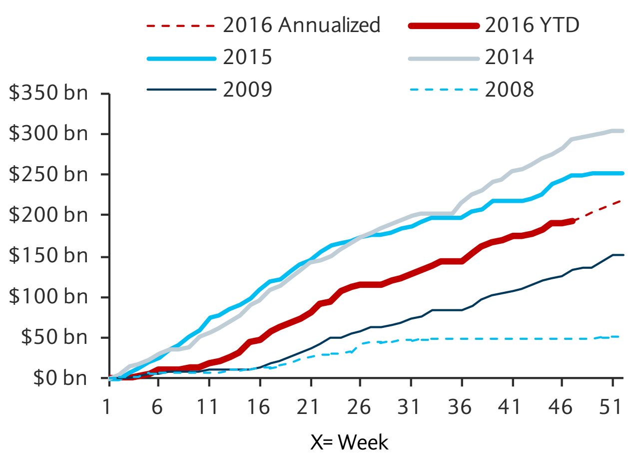
(+1% y/y), suggesting that the asset class has provided a sensible outlet for these investors. Though increased hedging costs and the recent uptick in longer-term yields may dampen the substitution effect into high yield, institutional demand technical should remain strong in 2017. We believe that inflows from Asia and Europe will continue as US assets still look attractive on a global fixed income landscape. In addition, we expect an increase in insurance demand for lower-rated debt under the implementation of the new NAIC rules (*Engendering a Shift to Lower Rated Bonds*, 24 June 2016).

Supply

In a year of relatively soft primary market activity, year-to-date issuance through November 25 totals a relatively modest $197bn. The current pace implies that $216bn will be priced through year end, notwithstanding seasonal factors. While the primary market has been relatively open since the February lows, 2016 supply will still fall well behind the 2014 and 2015 totals (Figure 14).

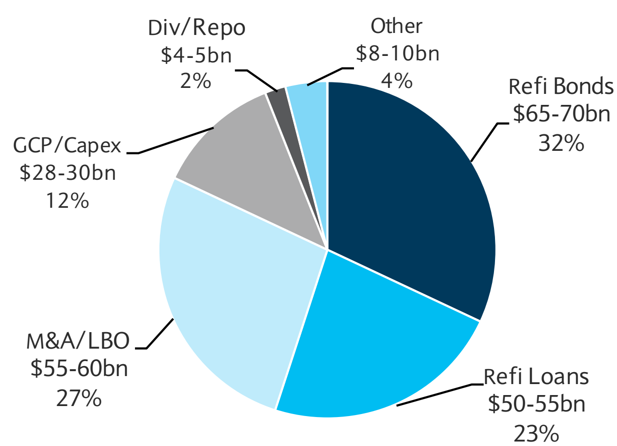
Softer acquisition-related activity partially explains the decrease in net issuance, which is about $127bn ($38bn lower y/y). The combined share of M&A and LBO proceeds accounted for only 19% of new issue so far in 2016, which is considerably lower than the 37% share in 2017. Our M&A forecast model suggests that acquisition-related supply should ramp up next year, but we believe more of this supply will come later in 2017; limited deal announcements through the second half of this year should translate into subdued financing needs over the first half of next year. Per our estimates, M&A and LBO proceeds should represent 27% of the new issue volume, only slightly above the five-year average, but still significantly below the 2015 share of 37%. Along with increased M&A activity, we believe that a higher portion of the issuance mix will be slated for investment. The president-elect's policies could create a favorable backdrop for sectors with outlooks otherwise held back by regulatory pressure, which could in turn boost capital expenditures. Therefore, we expect a total of $28-30bn in GCP/capex issuance next year.
Over 2016, gross supply has been boosted by a wave of refinancing, as issuers have taken advantage of favorable market conditions to term out a large volume of refinanceable bonds[4]. This activity could however slow in 2017 if rates continue to increase, as spreads absorb some but not all of the increases in rates (please see *Temporary Relief from Rate Fears*, 23 September 2016). The only exception we see is the increasingly large balance of front-end debt for CCC-rated issuers, which have struggled to term out their maturities. If

FIGURE 14
Weekly US high yield issuance comparison



Source: Barclays Research

FIGURE 15
2017 supply forecast by use of proceeds



Source: Barclays Research

[4] We define the "refinancing opportunity set" as the amount of debt set to mature or become callable in the next 12 months, as well as bonds that are currently callable.

fiscal and monetary policies promote growth and prolong the economic cycle, CCC-rated issuers may get a chance to refinance, which would support gross issuance totals. Overall, combining our expectations for acquisition financing, refinancing activity, and corporate investment, we arrive at a 2017 supply forecast of $210-230bn, implying approximately flat growth in the high yield market y/y.

Sector performance trends and outlook

Energy

Despite enduring a wave of downgrades and defaults, high yield energy credits led the rally in higher beta, producing year-to-date returns of 32%. Much of the outperformance relative to the broader market can be attributable to a recovery in oil, as energy performance continues to correlate with the price of oil, albeit to a lesser extent than in 1H16.

Macro developments, however, cast uncertainty on the trajectory of oil prices in 2017. Oil prices can come under pressure as domestic supply may free up owing to fewer production bottlenecks and less regulatory oversight under a Trump administration. That said, our commodities analysts believe that sustained growth in China and increasing demand for commodities as a hedge for consumption-induced inflation, can support a continuation of the rally into the first half of 2017 (*A more uncertain path*, 17 November 2016).

While commodity prices may continue to fluctuate into 2017, 3Q16 earnings have also eased some concerns about the ability of energy credits to turn a profit in a lower commodity price environment. Management teams in the Independent E&P sector have gradually worked to strengthen their balance sheets and reduce operational costs. Distressed exchanges have also slowed in recent months, but could continue to be a risk for some of the more leveraged capital structures. With the exception of well-hedged producers, we would not expect much guidance for 2017 spending plans from E&P issuers, and believe investors should continue to monitor headline risks to WTI prices. For these reasons, our fundamental analyst, Harry Mateer, maintains a Market Weight rating on the Independent E&P sector, which currently trades ~120bp back of the high yield index.

The oil field services sub-sector has recently faced challenges as E&P companies have allocated capital towards onshore shale plays away from offshore drillers, though the latter comprises more than 50% of the index. In our view, the scope for further improvement is limited as offshore drillers continue to face structural headwinds, which contributes to our Underweight rating on the sector, despite the additional spread of 356bp over the high yield index.

The midstream sub-sector has also come under pressure more recently, despite measures taken by management teams to improve their balance sheets. The sector currently trades tight to the broader market and we see little room for further compression in spreads given issues such as overcapacity, increased capital spending and legacy infrastructure. Harry Mateer rates the Midstream sector with an Underweight rating.

While narrower crude oil differentials and higher refined product inventories have contributed to thinner margins, the Refining sector should benefit under a Trump administration. Given that an attractive spread pickup is supplemented by a more benign backdrop for such industries, Harry Mateer rates the sector with an Overweight rating (*Tactical Trumps Thematic*, 21 November 2016).

Metals and Mining

Since reaching distressed levels in February, the metals & mining sector has been among the best performing segments within High Yield. The sector now trades 25bp inside the rest of the market (high yield ex energy) as commodity prices have staged a remarkable recovery, since reaching its lowest point in January. Valuations were further supported by the outcome of the presidential election, as metals prices rallied based on expectations of increased infrastructure spending and more volatility, with the base metals index reaching its year-to-date peak. Given that sector performance largely hinges on commodity prices, with the sector trading tight relative to the rest of the market and the base metals index reaching a year-to-date peak, we do not expect a similar level of outperformance in 2017.

Tech & Telecommunications

Technology

With a swelling in M&A activity, the technology sector stands out as a clear exception to a dearth of supply seen in other segments. Acquisition proceeds accounted for nearly 56% of issuance and there has been significant consolidation in the semiconductor sector. In the hardware space, consolidation activity was led by Dell's acquisition of EMC. While large technology mergers have not been spared from challenges, our Fundamental Analyst Jeff Harlib is constructive on Dell secured notes, given the company's commitment to deleveraging and likely realization of EBITDA gains from synergies. That said, the IT hardware sector face secular challenges amid increased cloud spending, declines in PCs and storage, and a shift to software. On the positive side, the performance outlook has improved for Micron, Seagate, and Western Digital with rising DRAM and NAND prices and an improvement in hard disk drive demand. Despite high recurring revenues, several software companies continue to struggle. Reported revenues are negatively affected by a shift to cloud/subscription deployments as weak licensing revenues reflect sales execution issues. Given that competing trends make opportunities within high yield technology more disparate among the mentioned subsectors, our fundamental analyst, Jeff Harlib, remains Market Weight on the sector.

Telecom

The wireless and wireline sector credit quality continues to diverge. In the U.S. wireless sector, T-Mobile continues to lead the industry with strong subscriber growth, improved operating performance, and free cash flow prospects. With improved network performance, subscriber trends, and cost reduction benefits, Sprint's turnaround is progressing well. The company's liquidity risk has further been reduced with low-cost spectrum leasing and other handset leasing transactions. In addition, M&A optionality for the wireless carriers is positive given convergence and potential interest by leading cable/other companies looking to participate in the shift the wireless. Given these encouraging trends, our fundamental analyst is Overweight the high yield wireless sector.

The wireline sector has seen recent M&A activity, including announced transactions by Centurylink/Level 3 and Windstream/Earthlink. However, performance and revenue trends have remained disappointing for key issuers including CenturyLink and Frontier, reflecting execution challenges (ie, Frontier), continued declines in legacy voice/wholesale-switched access revenues, broadband customer losses despite increased broadband speeds, and disappointing business revenues. As such, despite trading at above-market yields, our fundamental analyst maintains a Market Weight rating on the high yield wirelines sector.

Retail

The positives for the retail sector include a US economy at near full employment, wage growth at the lower end and the wealth affect at the upper end from equity indices near highs, and the potential for income tax cuts under the new administration. Despite the positive economic backdrop, the retail sector continues to face secular headwinds including gross margin pressure from e-commerce and declining mall traffic. We think these push/pull pressures will largely balance out with a continuation of recent trends. However we note the more weakly positioned credits have almost no ability to absorb a negative macro shock. Finally, despite the healthy high yield primary market, we think the retail sector will continue to shrink. Recent issuance for new sponsor names has shifted away from bonds to second lien mezzanine structures and Rite Aid is poised to leave the index in early 2017 once the WBA transaction closes. As a result we think holdings will be increasingly concentrated within the BB or higher quality names. Within that group we prefer apparel manufacturers to retail store operators.

From a valuation standpoint, the High Yield retail index is currently trading wide of the high yield index given the YTD rally in energy, which is fair in our view. Given those factors, our fundamental analyst, Hale Holden, remains Market Weight on the sector.

Home construction and building materials

While we expect the building sector to benefit from continued tailwinds in residential new construction and R&R activity in 2017, valuations remain generally unattractive relative to other leveraged industries. The high yield building materials sector (+9.8% total return YTD) continues to be our preferred channel for investing in the housing cycle. Our fundamental analyst, Keith Byrne, maintains a Market Weight rating on the sector, given more balanced operating leverage to new and existing home sales volume, lower sensitivity to rising rates, and better cost control. Further down the supply chain, homebuilder cash has underperformed 70% of sector constituents in the index (+7.6% total return YTD), owing largely to cyclically tight starting spreads and a reach for yield. While we continue to view homebuilder spreads as unappealing (tighter than 80% of sector constituents) and maintain an underweight rating on the Home Construction sector, we think the sector can outperform in more of a macro/geopolitical risk-off trading environment, particularly relative to industries with greater exposure to international growth concerns, FX headwinds, and commodity price volatility (2H15 provides precedence).

As for implications of the Trump administration, we think expansionary fiscal policy should lower recessionary risk and support entry-level housing demand, but growth will likely be tempered by rising mortgage rates and a tighter immigration policy. Although housing reform has not been a focal point for the president-elect, we think immigration policy could be the more meaningful factor in the near term, particularly given Trump's prioritization. With construction labor shortages already constraining housing growth and weighing on builder cost structures, we remind investors that roughly 25% of construction workers in the US are foreign born, and the largest housing market in the country (Texas) relies on immigrant sub-contractors from Mexico. Although Trump has toned down his rhetoric about deportation, any further displacement of workers could exacerbate current labor constraints, further extending construction cycles and suppressing backlog conversion rates as the new home market adjusts.

Gaming

High yield gaming has been one of the strongest-performing non-energy industrial sectors this year (+15.6% total return YTD). While we do not expect a repeat performance of the same magnitude in 2017, we think fundamentals remain on a solid footing and balance sheets are better-positioned after recent deleveraging progress and refinancing transactions, contributing to Keith Byrne's Market Weight rating for the sector. Our preference remains for operators with a commitment to proactive debt pay-down and cost control, a focus on non-gaming revenue streams, and exposure to less saturated markets with limited competitive pressure from new supply. We think equipment suppliers remain structurally challenged by the extended slot replacement cycle and declining installed base, although we are generally comfortable with discounted valuations and cash flow profiles given recurring revenue streams and achievable SG&A/R&D cost-saving opportunities.

Despite domestic regional markets remaining largely saturated and constrained to GDP-like growth, we think the election results could provide a near-term boost of confidence to unrated gaming customers in middle America, especially given Trump's rhetoric on job creation and tax cuts, which could translate into increased visitation/spending at regional properties. We are particularly constructive on Las Vegas fundamentals (both on and off Strip), which are bolstered by improving local economics, RevPAR upside from a healthy convention calendar, and a lack of near-term supply. In Macau, we acknowledge stabilization and a more positive tone in recent months, but maintain some caution given lingering questions about capacity absorption on the Cotai Strip (cannibalization risk), the timing of infrastructure development, the static risks of unappealing policy action from mainland China, and potentially negative implications of protectionist trade policy by the Trump administration. In our view, the next big opportunity for the global gaming community is the potential legalization of casinos in Japan, which is supported by Prime Minister Shinzo Abe and remains a key topic of discussion heading into next year.

Healthcare and pharmaceuticals

Since the beginning of 2013, the healthcare index has traded, on average, 60bp inside the high yield market (ex-energy). Over this period, the healthcare premium has gyrated as the sector went from trading 160bp inside the market (February 2016) to now trading 30bp back of the broader high yield market. The meaningful underperformance we have witnessed on the back of the election makes sense to us given Trump's aggressive rhetoric around his intent to "repeal and replace" the ACA. However, we identify increased labor cost pressures and price-based competition on the back of a push to increase pricing transparency throughout the system as two of the most obvious near-term negative catalysts. Additionally, as companies struggle to adapt to the industry-wide shift towards value-based care, many will simultaneously have to deal with servicing (and, in some cases, refinancing) onerous debt loads, brought about by debt-funded M&A.

Similarly, pharmaceuticals have recently underperformed relative to the overall index. However, we are more constructive on the upside in pharma based on the view that many of the drivers behind the sector's back up in spreads have largely been addressed – namely, bellwether credits are showing signs of stabilization after suffering through several quarters of earnings misses, guidance reductions, management changes, and uncertainty around operations. Further, given explicit commitments from most of the highly-levered names to focus near-term on reducing debt, we believe the relatively healthy cash flow profiles of many constituent credits will support recovery. Lastly, we believe the unexpected outcome of the presidential election should reduce the intense scrutiny of and focus on aberrant pharmaceutical pricing practices.

Financials

The HY Financial Institutions index has generated an excess return of 5.9% year-to-date, underperforming the High Yield Index by 741bp. Performance was influenced by a few specific issues, including negative returns in several European bank hybrids and weak sentiment around auto finance conditions affecting the largest index constituent (ALLY, 13% index weighting). These factors offset the strong performance of NAVI (10% index weighting) as liquidity, funding, and asset quality concerns eased throughout the year. Looking forward, we expect the political backdrop to provide fundamental support to most of the index constituents, as it fosters reduced regulation and limits the scope of the CFPB. We expect this theme to drive better relative index performance in 2017, and more specifically, to offset some of the market's concerns regarding ALLY's ability to navigate deterioration in auto finance conditions. We do not foresee any major rating cross-over catalysts in 2017, which should cap upside return potential with the index trading at an OAS of +394bp, or 65bp through the High Yield Index. On this basis, our fundamental analyst, Peter Troisi, affirms a Market Weight rating for the sector.

Chemicals

High Yield Chemicals has been the best performing ex-commodities sector, posting year-to-date returns of 19.7%. Though this performance was largely driven by higher-beta outperformance, the sector is still largely comprised of higher quality issuers that have strengthened their balance sheet over the past several years (ie, Axalta, Huntsman, NOVA Chemicals, PolyOne). While it will be difficult for the sector to generate ~20%+ returns again, the mix of higher beta and higher-quality credits should allow the Chemicals sectors to perform broadly in-line in 2017. We refer investors to *High Yield Chemicals: Where to Now?*, in which our fundamental analysts re-affirmed their Market Weight rating and highlight several relative value trades within the High Yield Chemicals sector.

Utilities

A normal winter, notwithstanding the warm autumn, would be moderately supportive for the independent power producers (IPPs) that make up more than 50% of the high yield utility index. An uptick in natural gas prices and power prices, along with higher locked in capacity revenues and reduced capex needs in 2017-18, would support the sector's deleveraging goals. The IPPs (with the exception of NRG) are currently well in excess of their 4.5-5.0x leverage targets, compared with 7.5x long-run sector EV/EBITDA multiples. That said, significant capacity additions, weak electric demand growth, and constrained potential upside for natural gas prices ultimately limit the sector's potential upside. In addition, we think the election outcome removes the challenge of an accelerated build-out of renewables that the Clinton campaign promoted, although it may also further constrain gas prices, and potentially slow down coal capacity retirement over the medium term. Our Utilities analyst, Srinijoy Banerjee, is Market Weight on the Utilities sector.

Credit derivatives outlook

CDX underperforms meaningfully

After outperforming for the past three years, derivatives significantly underperformed cash in 2016 (Figure 16). While much of the performance differential in the first half of the year could be explained by the drop in interest rates, this became less of a factor after the post-election selloff in Treasuries. Instead, much of the full-year difference can now be explained by the tightening in the CDS-cash basis and the CDX skew (Figure 17).

FIGURE 16

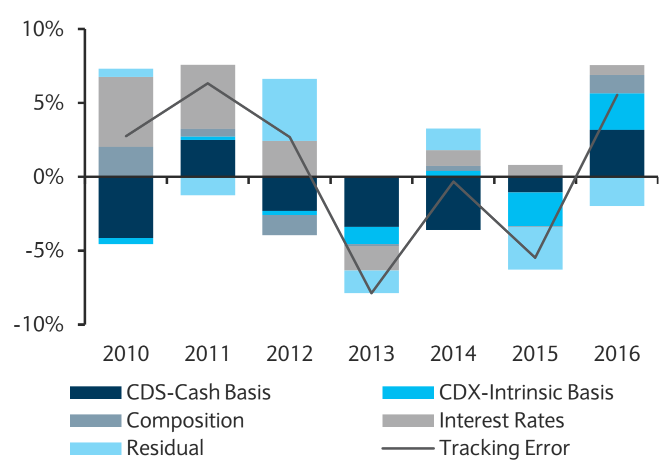
Annual HY cash total returns versus CDX returns

Year	US HY	CDX.HY	Difference
2010	15.1%	12.4%	2.8%
2011	5.0%	-1.3%	6.3%
2012	15.8%	13.1%	2.7%
2013	7.4%	15.3%	-7.9%
2014	2.5%	2.8%	-0.3%
2015	-4.5%	1.0%	-5.5%
2016*	14.7%	9.1%	5.6%
7-year	68.8%	52.4%	16.5%
Annualized	7.8%	6.2%	1.6%

Note: *2016 returns as of November 25. Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 17

Decomposing tracking error: CDX.HY versus HY cash



Source: Barclays Research

The significant difference in performance between derivatives and cash once again raises the question as to how well CDX tracks the cash market. Although concerns about the potential impact of compositional differences between the two have been reduced as a result of changes to the CDX index rules in 2015, it is likely that the tracking error will remain as interest rates, basis, and skew will continue to affect the relative returns of the two markets.

Competition grows from other portfolio products

Despite the potential for CDX and cash returns to diverge, CDX remains the most liquid portfolio product (Figure 18), and it is this liquidity advantage that continues to encourage investors to use CDX as a way to hedge and to manage the liquidity risk in their portfolios. That said, activity levels in high yield ETFs continue to grow (HYG traded notional +80% y/y, JNK traded notional +31% y/y), and while we have limited data on total return swaps, anecdotal evidence suggests that they have also been gaining in usage as well.

As the use of these products has grown, so has the need to assess their relative appeal. To assist investors with this effort, we started publishing a weekly portfolio products monitor starting in October. The monitor compares the products in terms of performance, valuation, liquidity, and sensitivity to fund flows. A recent example of the monitor can be found *here*.

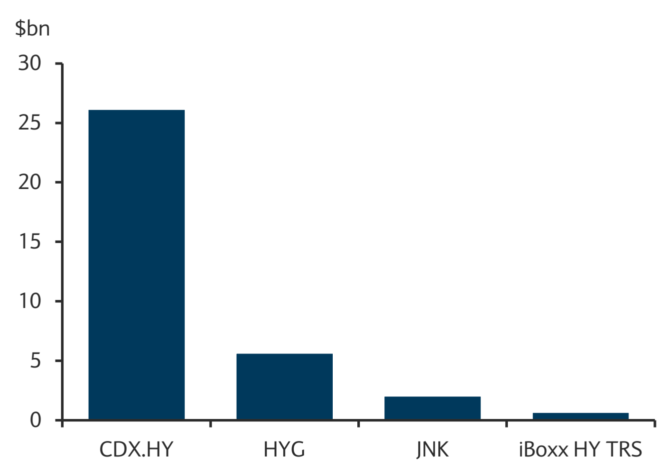
While CDX will continue to face growing competition from other products, we believe options on CDX will continue to provide opportunities for investors looking to hedge or to position with defined risk-reward. Options activity had been relatively subdued for most of the year but started to pickup in the weeks leading up to and following the US election (Figure 19). We believe activity levels in CDX options could remain elevated, especially if concerns about higher rates and outflows from high yield funds were to return.

The basis has tightened, but will likely remain volatile

After reaching historically wide levels in the first quarter of the year, the CDS-cash basis has tightened meaningfully (Figure 20). The significant move wider in the basis at the beginning of the year as the market sold off and subsequent move tighter as the market rallied raised the question of what factors are actually driving these large moves. Outside of the financial crisis, the basis had been considered to be mean-reverting, but the meaningful move wider from the middle of 2015 to early 2016 made some investors question whether there had been a structural change in the market.

FIGURE 18

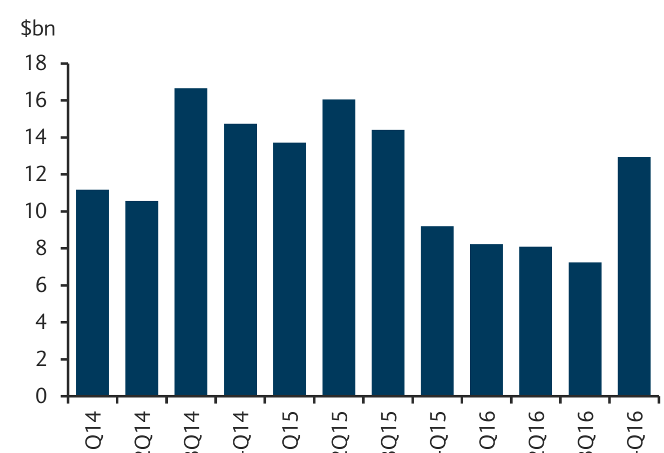
2016 average weekly volumes



Note: Average weekly volume for iBoxx HY TRS is estimated using data from Markit and is as of the end of September.
Source: DTCC, Bloomberg, Markit, Barclays Research

FIGURE 19

CDX.HY options: average weekly volume by quarter



Note: 4Q16 data as of November 16. The sizes of capped SDR trades are adjusted based on anecdotal observations of actual trades. Source: Bloomberg SDR, Barclays Research

As we discussed in *Back to Basis*, July 29, 2016, concerns about funding conditions and the potential difficulty in unwinding basis trades in illiquid market conditions likely allowed the basis to widen more than expected, but we believe that the demand for liquid instruments (which manifests itself in the CDX skew) and changes in retail fund flows and dealer liquidity have been the more meaningful drivers of the basis. We encourage you to refer to the article for additional detail, but we believe future changes in liquidity conditions and preferences could cause the basis to remain volatile. For investors looking to hedge, we believe the recent tightening in the basis presents an opportunity to rotate shorts from CDS to cash in credits where the basis is now flat or positive.

Single-name liquidity remains challenging

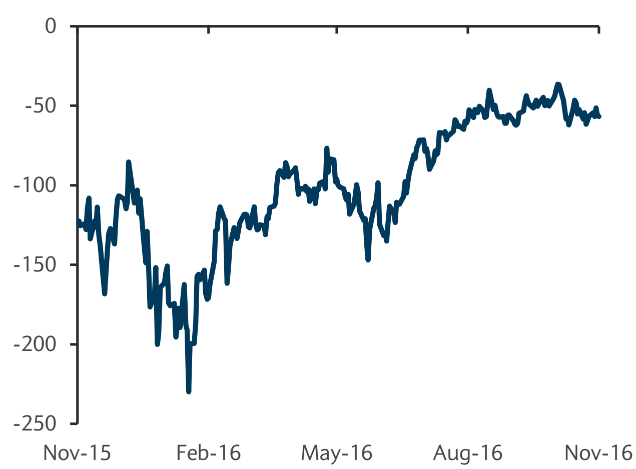
Despite what appeared to be a pickup in single-name CDS activity at the start of the year, the year-over-year change in reported activity levels has been disappointing. Using the semi-annual DTCC Index Roll reports, we can compare HY27 constituent volumes for the six-month period ending August 2015 with the six-month period ending August 2016 (using the 87 index constituents that had reported volumes in both periods). As Figure 21 shows, at an aggregate level, volumes on average have declined 47% versus the year-ago period. There are not many positives to take away from the reported data, but there are at least a couple of reasons for optimism about the future of the single-name CDS market, including the continued push to have clients clear their single-name CDS trades (according to ICE, 119 clients have now cleared single-name CDS, up from 60 at the start of the year) and the introduction of new credits into the high yield CDS market. While liquidity has been slow to develop in the new credits, the ability to trade more relevant credits in CDS should be a long-term positive over the completion of the credit cycle.

Relative derivatives performance should improve in 2017

Following the significant underperformance in 2016, we think CDX is well-positioned for better relative performance in 2017. While CDX performance could be hurt by its underweight in CCCs (~10%) versus the +16% weight of the cash index in issuers rated CCC and below, the other factors that hindered CDX performance this year – basis, skew, and rates – could all benefit the index next year. The basis is now close to the tightest levels of the past year, the skew is relatively flat, and the lack of rates exposure in CDX could make it an attractive long for those that are worried about higher rates.

FIGURE 20

Matched CDS-cash basis



Source: Barclays Research

FIGURE 21

CDX.HY S27 constituent volumes: 2015 versus 2016

		Average Weekly Volume ($mn)		
Sector	# of Tickers	Mar 2015 - Aug 2015	Mar 2016 - Aug 2016	y/y chg
Basic Materials	7	125.4	67.4	-46.3%
Cons Goods	11	68.6	33.5	-51.2%
Cons Services	23	61.8	35.0	-43.4%
Energy	6	188.8	99.5	-47.3%
Financials	12	58.8	28.9	-50.9%
Healthcare	4	62.0	28.7	-53.6%
Industrials	9	49.8	21.2	-57.5%
Technology	5	48.7	27.8	-42.9%
Telco Services	5	79.6	56.6	-28.9%
Utilities	5	26.2	16.6	-36.4%
Average		**73.1**	**39.1**	**-46.6%**

Source: DTCC, Barclays Research

US LEVERAGED LOANS & CLOS

Plan for another solid year

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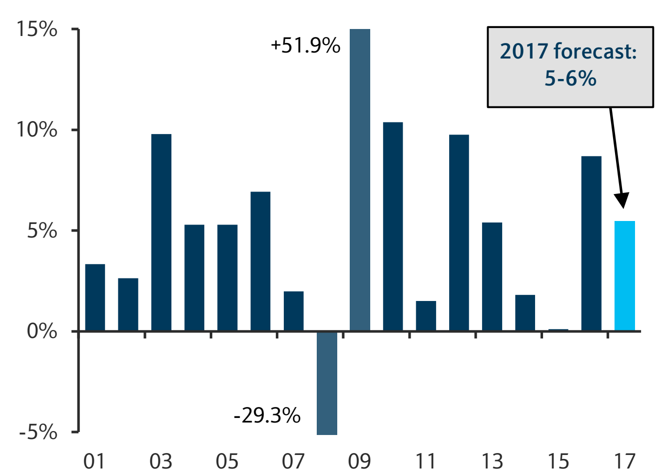
- **We forecast total returns of 5-6% and excess returns of 4-5% for US loans in 2017. We estimate returns from carry of about 5.3% and modest price appreciation of $0.45.**
- **Rising rates should lead to retail demand. Combined with solid CLO formation, we expect the loan asset class to be well supported. With more than half of the market at or above par already, the bulk of the price appreciation should come from the $90-100 bucket, which we believe will gain $0.60 on average next year.**
- **As the commodity credit default wave abates, we expect the spread in bond and loan issuer default rates to collapse. We forecast a drop in the loan default rate from the current 3.8% on an LTM basis to 1.5-2.5% in 2017.**
- **We forecast 2017 loan issuance of $270-290bn, a modest increase relative to this year. There is a decent refinancing opportunity set in the front-end of the loan maturity wall, and issuance should be supported by solid demand on both the CLO and retail fronts.**
- **We forecast $65-75bn in CLO issuance for 2017, which would more than offset the volume of deals expected to amortize next year.**

Overview

2016 recap – from troughs to peaks

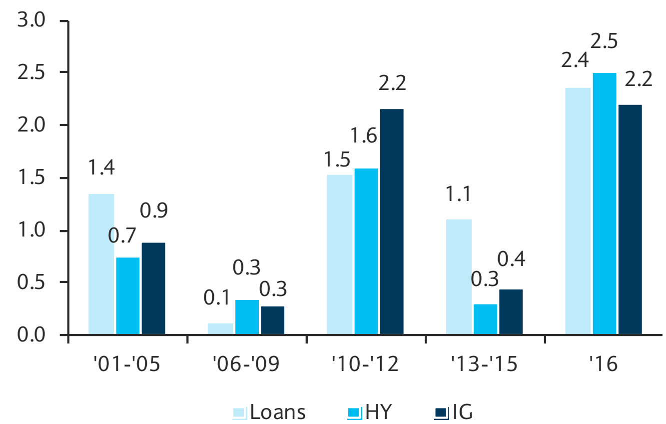
The loan market was weak in the first two months of the year, similar to other risky assets. Plummeting oil markets and related global growth concerns were the key factors broadly depressing risk assets coming into the year, and as oil rebounded so did risky assets, including loans. The loan market has relatively little direct exposure to the energy sector, but with more than half of outstanding loans held in structures with 10-11x leverage, even small exposures to distressed sectors are amplified quickly for CLO equity investors. Deeply negative equity NAVs earlier in the year made the CLO primary market grind to a halt, which

FIGURE 1
Annual returns of the S&P/LSTA Performing Loan Index



Source: S&P LCD

FIGURE 2
Sharpe ratios by asset class



Source: S&P LCD

had knock-on effects for the primary and secondary loan markets. These events seem like ancient history now, however, as an improvement in CLO issuance and recovery in mutual fund demand have supported the rally in subsequent months.

Loans' lower beta and lower exposure to oil led to outperformance in the first months of the year, and underperformance afterwards. By mid-February, the S&P/LSTA Leveraged Loan Index was down about 1.5%, compared to over 5% for high yield. Year-to-date, however, the S&P LSTA Leveraged Loan index has posted cumulative returns of 8.7%, trailing behind the high yield index by nearly 6%, but exceeding our 2016 performance forecast range of 5-6%.

While loans underperformed high yield in absolute terms this year, they still produced their usual solid Sharpe ratio (Figure 2). Also, even though index performance suggests that high yield produced slightly higher Sharpe ratios this year, anecdotal evidence and mutual fund return data suggest that most high yield managers did not participate in the commodities and fallen angel led rally. Retail fund managers underperformed the US HY index by 3.6% on average, while loan fund managers were able to track the broader market much more closely and underperformed by only 1%[5].

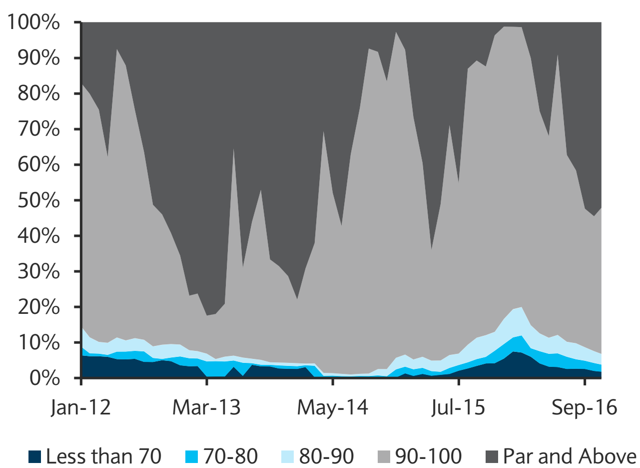
Despite these differences, the broader theme was consistent across leveraged finance markets – lower quality led the way. CCC's returned 23%, while B and BB returned 9.4% and 6.3%, respectively.

2017 returns forecast

We forecast total returns of 5-6% and excess returns of 4-5% for loans in 2017. Per our estimates, carry will account for approximately 530bp, given a nominal spread just shy of 400bp and an average loan price of about $97. Included in that carry is something that hasn't featured directly in loan returns for several years: Libor. Increases in Libor should finally contribute to returns again next year. Over 90% of the market has Libor floors, but the average strike is 98bp, and our rates strategists project that Libor will reach 150bp by the end of the year; with an average level of 118bp throughout the year it should contribute modestly to returns once again. Meanwhile, we expect benign default losses as the commodity credit default wave recedes: we estimate default losses to shave off a mere 29bp from total returns.

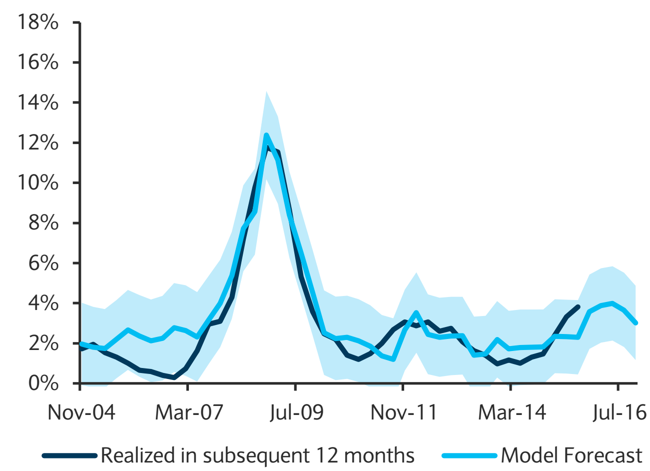
Average price appreciation is the last piece of the total return calculation. With about 51% of the index trading at or above par, additional price appreciation will have to come from the higher beta part of the market (Figure 3). The largest loans in the sub-$90 part of the market

FIGURE 3
Loan price distribution



Note: S&P/LSTA Performing Loan Index. Source: S&P LCD

FIGURE 4
Model forecast vs. realized issuer-weighted default rate



Source: Moody's, Barclays Research

[5] Measured as the difference in performance between dedicated retail funds and the S&P/LSTA Leveraged Loan Index

consist of very stressed credits, with offshore drillers and highly leveraged old world media featuring heavily. Within the sub-$90 category, loans in the $80-90 range may benefit from solid CLO formation and a related search for collateral spread. However, for most of that bucket we expect price action to be more idiosyncratic. The bulk of the index-level price appreciation should in any case come from the $90-100 bucket, which represents 40.4% of the performing loan index par. Price increases there will depend on markets being generically buoyant next year, with rising rates stimulating incremental retail demand. Within that $90-100 category, 72% is admittedly already in the $98-100 range, with limited room for upside. Nonetheless, accounting for the rest of the distribution, we see the average price increasing by approximately $0.60 for loans in the $90-100 range and $0.45 for loans overall.

As with our high yield forecasts, this outlook is predicated on expansionary fiscal policy that more than offsets the drag of protectionist trade policy, leading to a net boost in domestic consumption and an extension of the economic cycle. Loans could benefit further from an incoming president who appears to favor deregulation. CLO formation has been hampered by both the Volcker rule and risk retention. Meanwhile, the leveraged lending guidance has improved the overall quality of new loans, but has made it more difficult for stressed credits to come to market. While we do not expect any change to the guidance in 2017, these mandates can eventually be relaxed in the long term under a more benign regulatory environment. This in turn can eventually lead to more “high-octane” loans being created, injecting both more spread and more volatility into the asset class, but it should also be net supportive of valuations for existing loans.

Default risk

The default experience has been very different for loan and high yield issuers this year, owing to very different commodity sector exposure for the two asset classes. The trailing 12-month issuer-weighted default rate for US bond issuers is 7.5% as of October, while it is a much more modest 3.2% for loan issuers. The 430bp difference is large but typical at the peak of default cycles. Our expectation was that loan default rates would end 2016 at 2.75-3.25% because of significantly lower exposure to commodities (see *An Aging Cycle*, 4 December 2015), and we continue to believe that it will end the current year in that range. Given the president-elect’s fiscal stimulus agenda, we believe US economic growth will continue. That said, the default mix for loans and bonds was skewed towards commodities. On a par basis, commodities constituted 70% of the defaults for loans and 67% of bond defaults. As the default wave in commodity credits abates, we expect the divergence between bond and loan default rates to compress.

Similar to our approach for forecasting defaults for high yield, we combine a top-down econometric model with a bottom-up review of credits. Our top-down model relies on a two factor regression of the 12-month forward default rate on C&I lending standards and the distress rate. The former is a quarterly series from the Federal Reserve, and records the net percentage of senior loan officers reporting plans to tighten lending standards for commercial and industrial loans. We define the latter as the percentage of the S&P/LSTA index trading below $80. Our top down model leads to a forecast of 3.0% for the loan issuer default rate (Figure 4). However, as with prior years, we also surveyed our fundamental analysts for credits that they believe have a greater chance of defaulting in 2017. The results of this analysis indicate significantly lower default rates than the top-down model. Reviewing the universe of issuers rated CCC and below in the current loan universe, we arrive at 0.7% on an issuer weighted basis and 1.0% on a par weighted basis. Combining the bottom-up and top-down approaches, we forecast a 1.5-2.5% default rate on both an issuer- and a par-weighted basis in 2017.

Sectors

Fundamental trends apply broadly across leveraged finance markets (please see US High Yield), but differences in sector weights between the two asset classes shed light on the main sources of relative performance. Energy was unsurprisingly the biggest difference driver this year. Loans' comparatively small exposure to energy contributed roughly 3% to its 6% underperformance relative to bonds. While the imbalance in commodity sector weights persists, we do not expect energy to be as much of a difference maker next year; commodity analyst Michael Cohen forecasts that WTI will average $56 in 2017. That said, from current levels the risk is to the downside for high yield. Even if oil rallies, the relative contribution of the energy sector to bonds and loans should not be massively different; on the other hand, if oil drops substantially, this year's energy-driven underperformance in loans could partially reverse.

The healthcare sector can, however, feature as a source of potential tracking error between the high yield and loan markets in 2017. While the high yield healthcare sector sold off sharply after the election and has posted month-to-date returns of -2.3% through November 25, the loans healthcare sector returned a more modest -0.22%. We believe that increased labor costs and price-based competition associated with increasing price transparency and Trump's intention to "repeal and replace" Obamacare are all headwinds for the sector. Furthermore, leverage has climbed steadily from 4.9x at the end of 2015 to 5.2x in the third quarter of 2016, as companies have struggled to adapt to the industry-wide shift towards value-based care. These trends can ultimately intensify any underperformance of the loan healthcare sector relative to high yield, despite the relatively small difference in sector weights.

FIGURE 5

S&P/LSTA Lev Loans Index vs. High Yield Index return contributions by sector

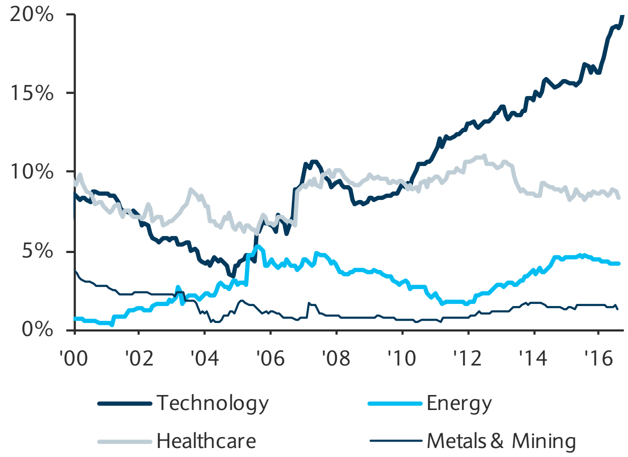
	Average Weights			Return Contribution		
Sector	**S&P LLI**	**HY Index**	**Difference**	**S&P LLI**	**HY Index**	**Difference**
Energy	3%	13%	-10%	0.9%	4.1%	-3.2%
Communications	4%	9%	-5%	0.4%	1.5%	-1.0%
Technology	19%	7%	13%	1.5%	0.9%	0.6%
Lodging & Casinos	5%	0%	5%	0.6%	0.0%	0.5%
Financial Institutions	3%	10%	-7%	0.2%	0.7%	-0.5%
Media Cable	4%	7%	-3%	0.2%	0.5%	-0.3%
Leisure	4%	1%	3%	0.3%	0.1%	0.2%
Pharmaceuticals	3%	2%	0%	0.2%	-0.1%	0.2%
Healthcare	9%	7%	2%	0.6%	0.3%	0.2%
Media Noncable	3%	4%	-2%	0.2%	0.4%	-0.2%
Electric	4%	3%	1%	0.3%	0.4%	-0.1%
Chemicals	4%	2%	2%	0.4%	0.4%	-0.1%
Restaurants	2%	1%	2%	0.1%	0.1%	0.1%
Food	2%	2%	0%	0.1%	0.2%	-0.1%
Retailers	5%	3%	2%	0.4%	0.4%	0.0%

Note: Contribution to return calculated by multiplying the average weights to the year-to-date return. Returns are listed for the largest 15 sectors in the S&P/LSTA LLI by Market Value. Source: S&P LCD, Bloomberg Barclays Indices

Technology did not contribute very much to the relative performance of loans and high yield this year, but it has potential to drive a significant wedge given the 13% difference in its weight in the two indices. Tech classification is complicated by the fact that tech names may be classified differently across data providers, particularly in the business services

FIGURE 6

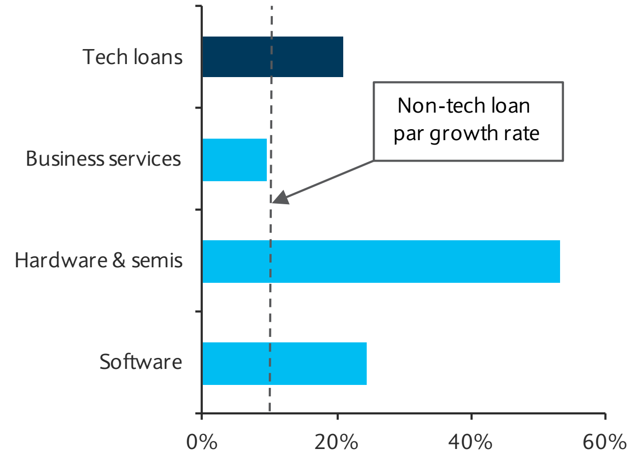
Loan index sector weights by par amount



Source: S&P LCD

FIGURE 7

CAGR of tech loan par by subsector versus rest of market



Source: S&P LCD, Barclays Research

segment. However, we still find a significant mismatch in sector allocations of nearly 7% between the two indices even after adjusting for names that are categorized under business services. While the high yield market has also seen a pickup in tech issuance owing to an increase in M&A activity, growth has been most notable in the loan market. In 2007, tech represented approximately 10% of the S&P/LSTA loan index, it currently accounts for nearly double that (Figure 6). Over the same period, the share of the tech sector has grown from 5.2% to 7.6% in the high yield index.

By classifying individual tech credits into software, hardware & semiconductors, and business services, we find that the excess growth has come entirely from hardware and software (business services par has grown in line with the rest of the asset class)[6] (Figure 7). Meanwhile, the outsized growth in hardware and semiconductors is partly a reflection of more mega-deals in that part of the tech sector. The software sector, on the other hand, has not been as biased by larger deal sizes, but has been very active nonetheless.

Issuance in tech loans has not only been brisk, it has also been disproportionately skewed toward uses that increase leverage. In particular, leverage multiples have trended higher for the past decade in the software & data subsector (5.4x on average in 2016, versus 4.2x in 2005) and may coincide with increasingly aggressive EBITDA adjustments in M&A transactions. Overall, tech loans used to offer slightly more risk-adjusted compensation than the rest of the market, but are now squarely tighter per turn of leverage.

Though we see no near-term catalyst for a pullback in tech, the fundamental trends are not encouraging. Collateral has been less of a strict requirement for software issuers specifically, with highly recurring revenues taking place of hard assets. This structural shift in lending to software credits is another cause for concern, in our view.

Supply and demand

Demand

Changes in the loan market ownership structure have been relatively modest due to several factors, namely minimal par growth, breakeven levels of CLO issuance, and small year-to-date net outflows registered by loan mutual funds. While the year began with mutual fund outflows

[6] There were several such instances where data providers had disagreed on classification, particularly among non-tech and business services issuers. We manually re-classified many of these credits, but were otherwise comfortable with relying on S&P's index sector classification scheme in cases where sector classification was unclear.

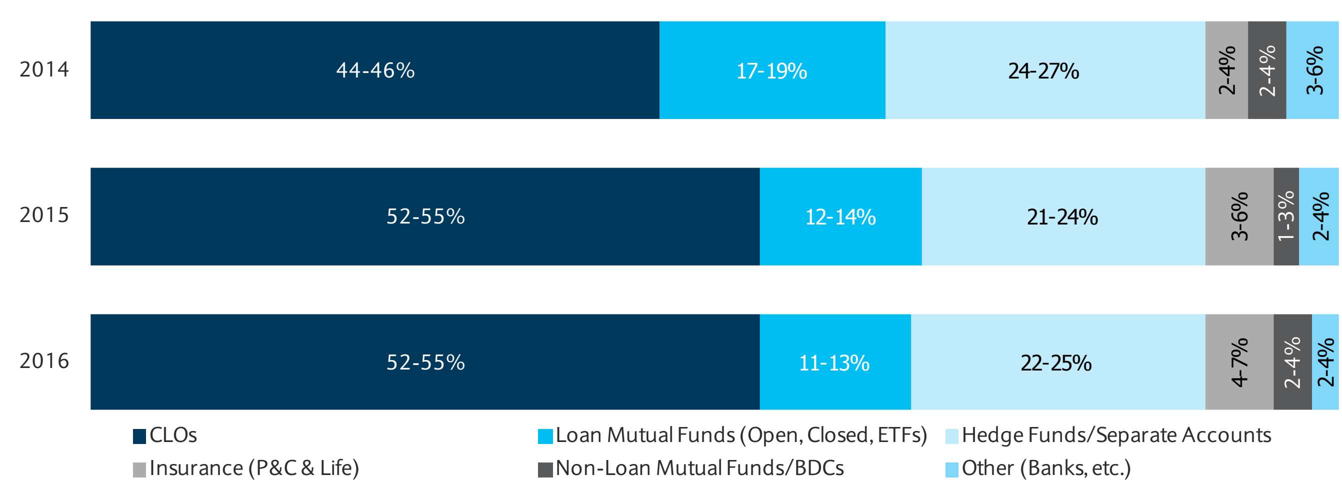
and anemic CLO origination, trends in demand have since reverted. More recently, CLO volumes have picked up, helping recuperate par lost to amortizations in the beginning of the year. The net effect of a slight increase in the CLO total amount outstanding (+3% from last year) and soft growth in the institutional loan market has kept CLO ownership unchanged between 52-55% (Figure 8). Retail appetite for the product has similarly recovered after an extended period of outflows coming into the year. According to Lipper, dedicated loan retail mutual funds and ETFs registered the largest monthly net inflow since 2014 in November through the 23rd ($2.4bn). The outflows in the beginning of the year, however, offset the subsequent inflows, and as a result, the dedicated retail ownership is down slightly, to low double digits (11-13%). Consistent with trends in other markets, the institutional ownership profile has endured the most significant change. Assets flowing in from abroad in a global search for yield resulted in an increase in the share of loans held by separately managed accounts, pension funds and insurance companies. On the other hand, hedge fund assets for the industry are down approximately 2%, and corporate-focused funds have not been spared from these withdrawals; higher prices and an increase in out-of-index defaulted securities make performing loans less attractive to hedge funds. In aggregate, we estimate that institutional ownership is up approximately 2% y/y; hedge funds and separate accounts own 22-25% of the loan market, while insurance companies own about 4-7%.

Supply

The primary market for loans got off to a slow start this year. In the first two months of 2016, the market priced a total of $22.3bn, roughly half the typical $20-25bn per month. Issuance accelerated sharply from March to June, and 2016 should produce a 15-20% y/y increase in full-year volume ($275bn full-year expected total, excluding repricings). This annual increase in loan supply contrasts with a high yield primary market that looks likely to be down about 15% y/y.

M&A and LBO volumes have accounted for 54% of total supply this year, considerably less than in 2015 (63%). The decline is entirely due to the M&A side of the equation, and our forecasting model suggests that such issuance should be slightly lower again in 2017. Meanwhile, year-to-date LBO volumes ($58.8bn) are already in line with full-year 2015 and should, therefore, be up by year-end. Sponsored transaction volumes are still low relative to 2013-14, as the leveraged lending guidance has had a palpable effect on banks' ability to commit to highly leveraged financing. We therefore do not expect LBO volumes to grow meaningfully next year. At 16% of the total, dividend and recap deals represent a share

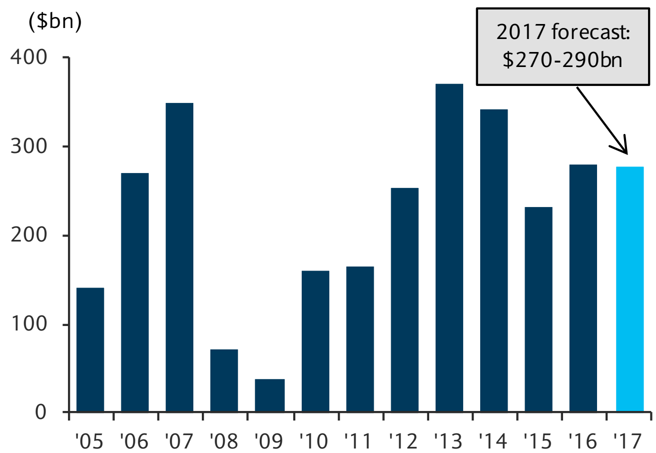
FIGURE 8
Estimated share of US leveraged loan holdings



Source: Lipper, EPFR, CEF Connect, Credit Flux, HFR, Federal Reserve, S&P LCD, Bloomberg, Barclays Research

FIGURE 9

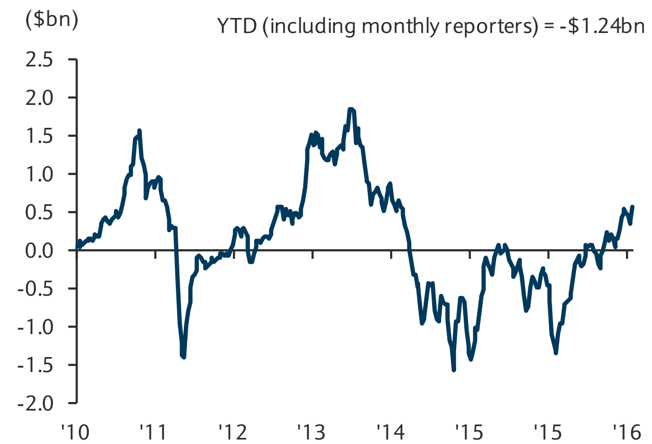
Annual issuance ex-repricings



Note: 2016 figures are annualized. Source: S&P LCD

FIGURE 10

Four-week average of loan mutual fund flows



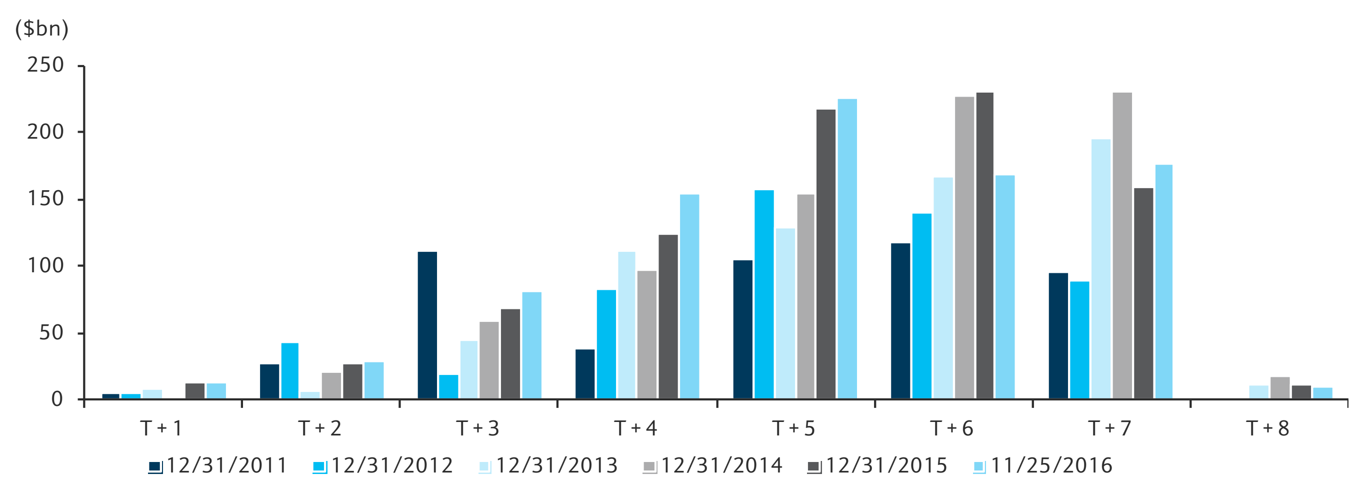
Source: Lipper

similar to 2015, but refinancing activity has jumped from 21% to 26% of total volume. We believe this trend will continue as secondary markets become more comfortable with lending to stressed issuers. The maturity wall as of the third quarter of 2016, revealed a disproportionate accumulation of front-end debt, as we had highlighted in *Rising Refinancing Tide*. Since then, a pickup in refinancing activity has helped clear the clog at the three-year point (Figure 11). As secondary markets take a more constructive stance on stressed issuers, we believe that the refinancing wave will continue into 2017.

With rates on the rise, the trend of inflows to loan mutual funds and ETFs should continue. This bump in demand for floating-rate products should translate into more supply, assuming that CLO issuance remains solid. Combined with the need for front-end refinancing, we forecast 2017 loan issuance of $270-290bn.

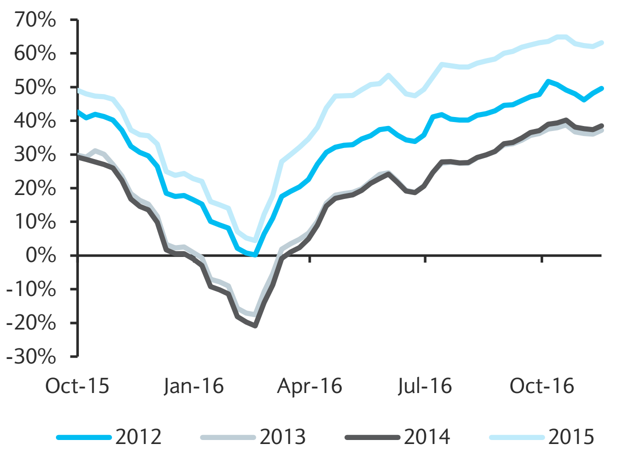
FIGURE 11

Maturity Wall for Outstanding Loans in the S&P/LSTA Leveraged Loans Index



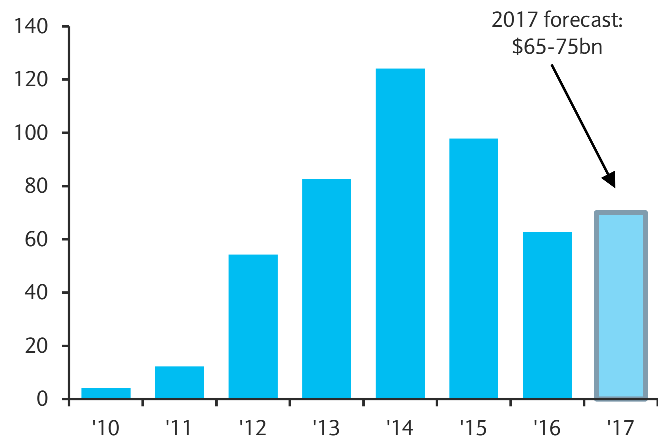
Source: S&P LCD, Barclays Research

FIGURE 12
Average CLO equity NAV by vintage



Source: Intex

FIGURE 13
Annual CLO issuance required to offset amortization ($bn)



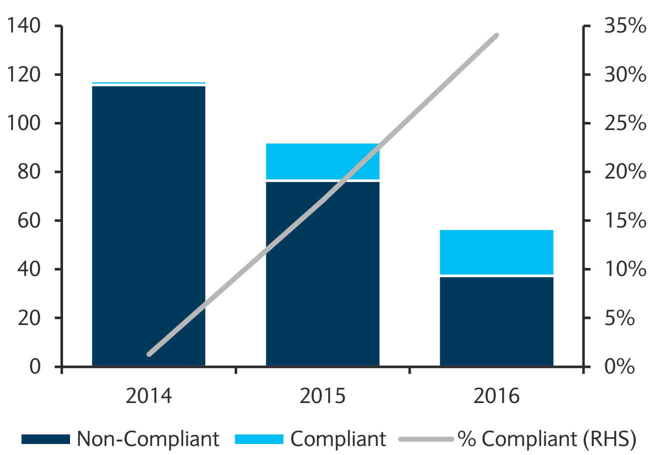
Source: S&P LCD, Barclays Research

CLO trends

New CLO formation ground to a standstill in the first two months of the year as oil reached new lows. Despite the low collateral exposure to commodities, structural leverage of 10-11x made potential losses to equity investors substantial. Equity NAVs plummeted, with the more energy-heavy 2013 and 2014 vintages going into negative territory (Figure 12). With new issue equity capital extremely scarce, a total of $3.4bn in new structures priced in January and February combined. Since then, the monthly average has been $6.6bn, and the three months from September through November produced over $8bn each. Indeed, total year-to-date supply excluding repricings through the end of November has reached $63bn, more than most imagined to be possible for the full year, and more than the $60bn we estimated would be necessary to offset amortization of older deals (Figure 13).

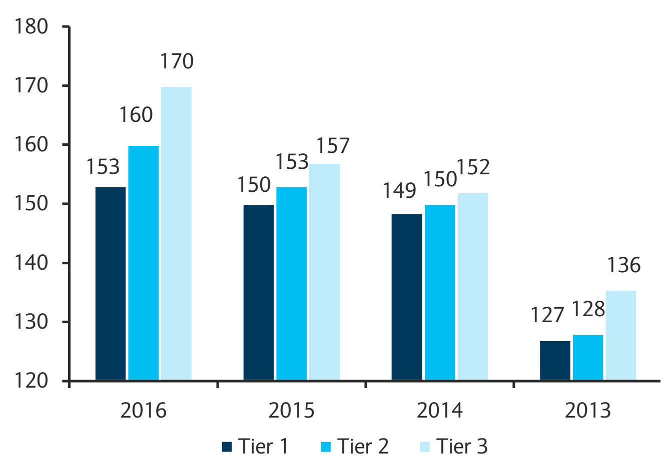
We see several reasons for the recent $8bn+ pace to slow next year. First, risk retention will be mandatory for managers come Christmas of this year. While risk retention compliance has grown substantially, in 2016 only approximately one-third of new deals had some compliance method in place (Figure 14). For those, several solutions have been implemented, but it will not be clear if they are all approved by the regulators until after

FIGURE 14
New issue CLOs by US risk retention compliance ($bn)



Note: Excludes middle market deals. Source: S&P LCD

FIGURE 15
Median new issue AAA spread by manager tier (bp)



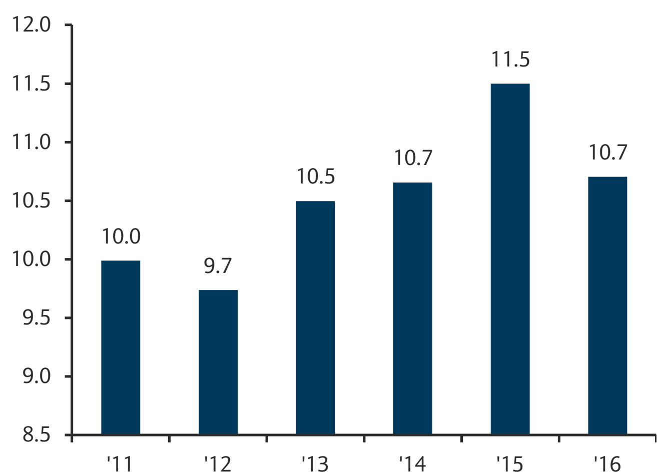
Note: Tiering based on post-crisis deal volume. Source: S&P LCD

December 25. In our view, it is likely that regulators will voice their opinions on different risk retention approaches, and issuance may slow as the market aligns to the preferred method. The market continues to differentiate between larger and smaller CLO managers, with the latter less likely to have risk retention solutions in place and forced to pay significantly higher liability spreads as a result (Figure 15). Even if all the current solutions are deemed viable, strong demand for loans would lead to tightening collateral spreads, making arbitrage increasingly difficult from the equity side. Repricing waves would compound this problem, with the current repricing wave having shaved about 10bp off the loan market average coupon. As a result of these factors, we forecast $65-75bn in CLO issuance for 2017 (Figure 14), which would be similar to this year and would also more than offset in the volume of CLOs expected to amortize next year.

CLO managers have not had to resort to higher leverage in 2016. Indeed, the median leverage of new deals has come back down to 10.7x in 2016 after jumping to 11.5x in 2015 (Figure 16). However, with Libor on the rise and expected to keep increasing next year, the benefit of Libor floors – which has accrued to equity investors for years – will completely disappear, making the arb more challenging. Higher leverage, and larger CCC or second lien buckets are structural ways to boost equity returns, although CLO managers are likely to shy away from those options given the recent experience with energy in late 2015 to early 2016. Given that view, and our belief that collateral spreads will be firm next year, we see tightening in liability spreads as the most likely approach to making the arb work in 2017. That tightening could come from global demand, in our view. US AAA tranches are now slightly more compelling on an FX-hedged basis and trade 7bp back of their European peers, while they previously traded 13bp tight at the start of the year. With risks of potentially disruptive anti-establishment votes in Europe and ECB tapering, we believe there is room for US AAA spreads to benefit (for more details please see European Leveraged Loans & CLOs).

FIGURE 16

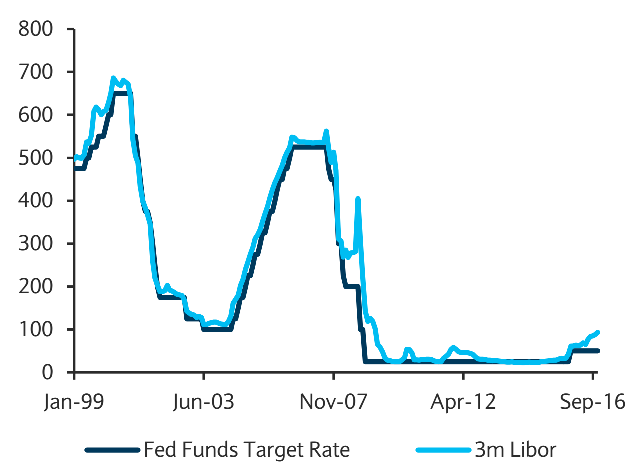
Median leverage of equity tranches in CLO new issues



Source: S&P LCD

FIGURE 17

Libor vs. Fed funds target rate



Source: Federal Reserve, Bloomberg

US MUNICIPAL CREDIT STRATEGY

The year of turbulence

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- **2017 will likely be a relatively difficult and volatile year for municipals, as Donald Trump considers implementing various policies, many of which will affect munis directly. To us, the biggest realistic threat to the market is corporate tax reform, which should substantially dampen demand from banks and insurance companies.**
- **Assuming Treasuries stabilize at somewhat higher levels, we project total returns for the Bloomberg Barclays Municipal Bond index to be about 2% in 2017, though we see a number of scenarios where munis perform much worse. Meanwhile, taxable muni credit spreads are likely to widen about 5bp.**
- **We forecast 2017 long-term gross issuance of $360-380bn, down about 16% y/y. As rates and muni-Treasury ratios move higher, we expect less advanced refunding activity, but more new money and taxable supply than in 2016.**
- **Overall, we recommend investing in better quality credits across the board until there is more clarity with respect to tax reforms. We would also prefer to trade up in rating and coupon; to be overweight defensive sectors; and to shorten duration, as the yield curve is likely to continue steepening.**
- **The tactical approach might come in handy this year. For example, levels could start 2017 relatively cheap, supply could be underwhelming, while large December coupon payments and redemptions should provide a positive backdrop. Hence, investors might consider overweighting the asset class going into 2017.**
- **Similar to 2013, crossover investors and direct retail will play an important role in stabilizing the market and will likely be able to find abundant opportunities in the tax-exempt space. Crossover buyers should focus on tobacco, healthcare, corporate-backed munis and some other sectors. They might also consider lightening up on their taxable muni exposure while reallocating into cheap tax-exempts.**

2017: The year of challenges

Over the past decade, the municipal market has experienced violent sell-offs every 2-3 years: 2008, 2010 and 2013. For most of it, 2016 seemed to be relatively stable; there was only one cloud on the horizon – the US elections and a potential Republican sweep (see *here*) – though it did not seem likely for most of the summer, as Hillary Clinton was comfortably leading in most polls. However, on November 8, everything changed, and now Republicans have full control of Congress and could expediently implement various policies that are on President-elect Trump's agenda, many of which will affect munis directly: personal and corporate tax reforms, changes to the ACA, and major infrastructure investments.

The Treasury market has reacted in a drastic fashion, selling off nearly 60bp after the Trump win, as his policies are viewed inflationary by investors. Not surprisingly, munis have underperformed Treasuries, as the tax exemption is likely to become less valuable after tax reforms are implemented for individuals and corporations. Moreover, muni fund outflows have already started (which is quite common after large rate shocks) and are likely to continue for a prolonged time.

While we think that the market should stabilize in the near future, it is hard for us to see munis having a strong 2017, given all the uncertainties surrounding this asset class at the moment. Moreover, until there is more clarity on the extent of the Trump fiscal stimulus, Treasury rates are likely to continue to move higher, and the Fed could also become more aggressive as a result.

Amid this backdrop, muni investors will be closely following the prospects for tax reforms; we believe that the effect of corporate tax reform on the municipal market could actually be more pronounced than personal income tax reform (unless the muni tax exemption is curtailed, which does not seem very likely at the moment). Regardless, until more clarity about tax reforms emerges, 2017 is likely to be relatively difficult and volatile for munis, though tactical investment opportunities might still be abundant, in our view.

Waiting on tax reforms

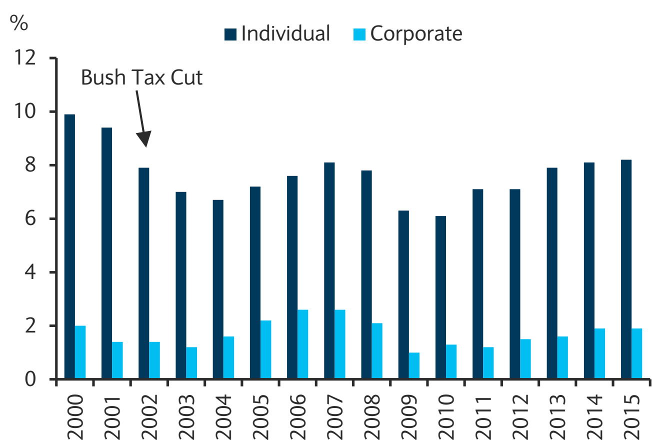
In the aftermath of the Trump win and the US Congress staying under Republican control, real policy changes could be implemented next year, and one of the main ones is tax reform. We think that it hardly is a question whether municipal demand is going to be affected; it is to what degree, and much will depend on the extent of corporate and personal income tax cuts implemented by the Trump Administration.

In the past, not only Donald Trump, but also House Speaker Paul Ryan has been expressing a strong desire to simplify the tax code, which increases the probability of reforms. Trump's selected tax policies include: 1) having only four tax brackets: 0%, 10%, 20%, and 25%; 2) increasing the standard deduction while restricting other deductions; 3) eliminating the Alternative Minimum Tax (AMT); and 4) lowering corporate taxes to 15%. Speaker Ryan's plan includes: 1) having just three tax brackets: 12%, 25%, and 33%; 2) a maximum corporate tax of 20%; 3) and increasing the standard deduction while restricting others.

While these plans are appropriate as a starting point to negotiations, we cannot see Congress allowing deficit spending to the degree that was proposed on the campaign trail, especially for personal income taxes, which represent a much larger portion of revenues than corporate taxes (Figure 1). Arguably, personal income taxes in the US are not particularly high compared with other developed countries, but corporate taxes are some of the highest in the world (Figure 2) and is the main reason for inversions, which have been aggressively attacked by members of both parties.

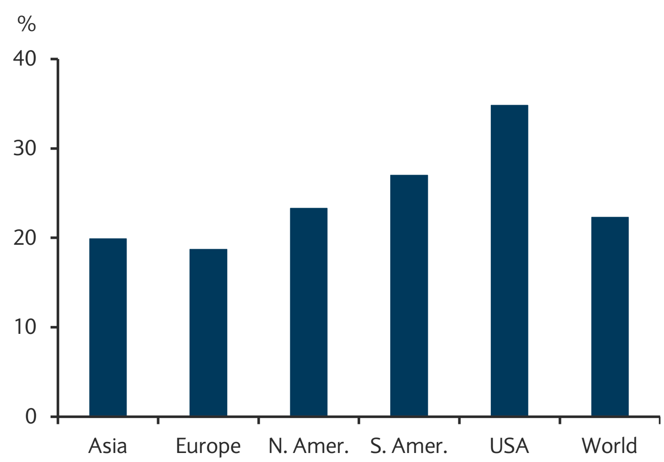
So what is the likely extent of tax cuts? We can use George W. Bush's cuts as a point of reference (Figure 1): when the top tax bracket declined from 38.5% to 35% in 2002, tax revenues dropped about 1.5% of GDP. According to Barclays economists, it is unreasonable to expect the fiscally conservative Congress to authorize fiscal stimulus that is substantially larger than the Bush tax cuts (see *here*).

FIGURE 1
Income and Corporate Taxes (Receipts/GDP)



Source: Tax Policy Center

FIGURE 2
Highest Top Marginal Corporate Tax Bracket (Large Corp.)



Source: Tax Foundation

Next year could include a sizable corporate tax cut to the low 20s. It is not clear how much that would affect total revenues, given that the average effective tax rate for the S&P companies is currently in the mid-20s and for the broader corporate market is substantially lower; moreover, some of the revenue losses could be offset by tariffs that are likely to be introduced early on, according to Barclays economists.

Meanwhile, it is much more costly to decrease dramatically an upper tax bracket for personal income, since it is a much larger source of revenue. Most likely, it will be decreased to only 33-35%, and this is likely to be accompanied by the closure of certain loopholes and tax breaks.

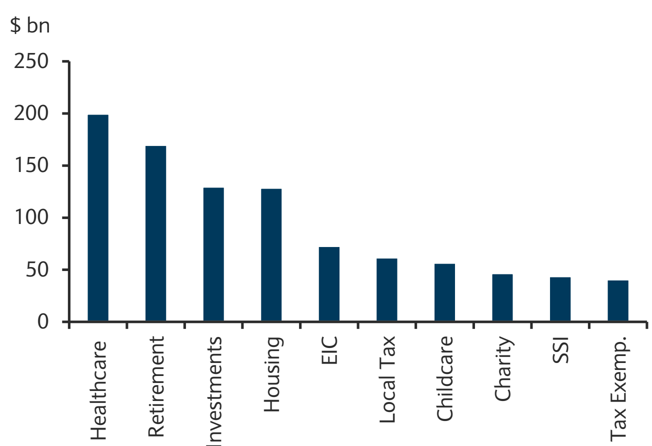
When one goes down the list of the largest tax breaks for individuals, it is hard to find many items that are politically feasible to sacrifice, including the muni tax exemption, though it is probably one of the more vulnerable items (Figure 3).

Most likely, some form of muni tax exemption will remain, though in one possible scenario, it is capped at a relatively high rate (eg, 28%), similar to what was proposed by President Obama's Administration in the past. Given that tax-exempt munis are likely to be one of the main tools for infrastructure funding, the muni tax-exemption being dramatically reduced or cancelled altogether seems highly unlikely, though of course there is a risk in a year of dramatic changes and uncertainties.

We also do not assign a very high probability to outstanding municipal bonds being grandfathered in this case, because the Federal government will get little additional revenues for a long time, since the majority of municipal bonds will continue being exempt; and funding costs should still dramatically increase for all municipalities issuing debt, since the muni tax exemption will likely become less valuable to investors.

FIGURE 3

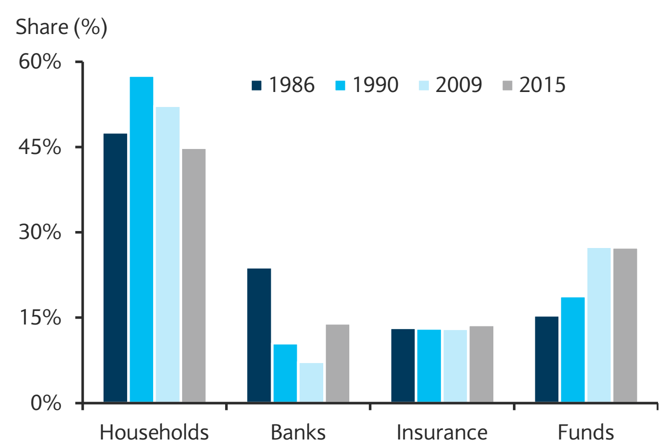
Cost of Selected Individual Income Tax Breaks (by type)



Source: Joint Committee On Taxation

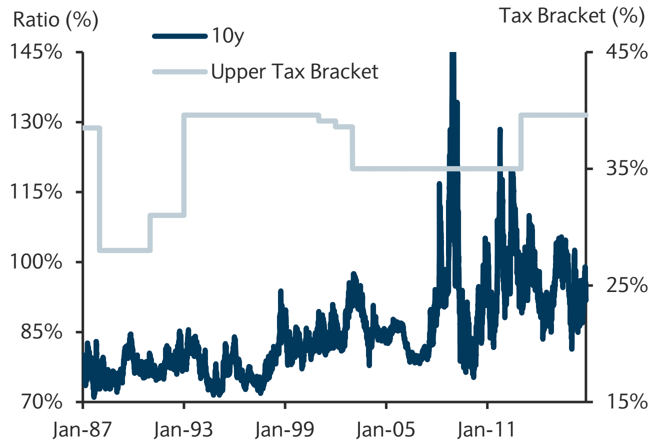
FIGURE 4

Changing Landscape of Muni Investors



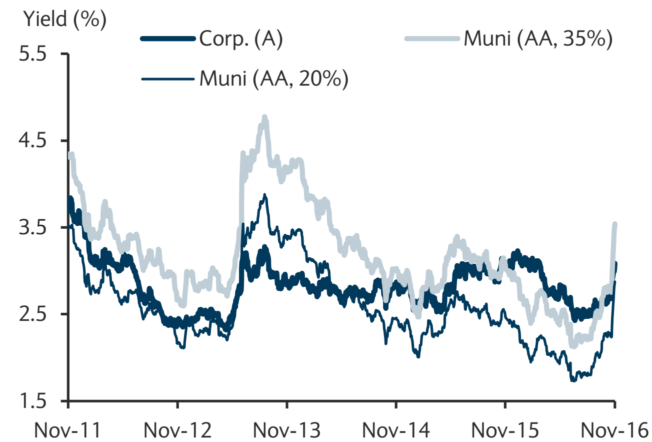
Source: Fed Flow of Funds

FIGURE 5
MMD/UST Ratios (1987-2016)



Source: Muni Market Dateline

FIGURE 6
Corporate vs. Muni Tax-Equivalent Yields



Source: Bloomberg Barclays Indices

Changing demand patterns

In a watershed year such as 2017 is likely to be, we expect substantial shifts in investor demand patterns. We are less concerned about personal income tax reform (unless the tax exemption is capped or reduced), but corporate tax reform could dramatically decrease appetite from banks and insurance companies (mainly P&C insurers), which are currently some of the largest investors in tax-exempt munis; meanwhile, mutual funds might struggle with outflows until Treasury rates stabilize.

The last dramatic simultaneous tax cut for personal income and corporate taxes occurred during the Reagan era. From 1986 to 1988, the upper tax bracket for large corporations declined from 46% to 34% and for personal incomes from 50% to 28%. Somewhat counter-intuitively, households were able to accumulate a larger share of the muni market over this timeframe, mainly sold by banks (Figure 4).

The rate environment was dramatically different in the early 1980s: rates were very high, and the bond bull market was just getting underway. Hence, this shift in demand patterns did not result in any massive rate shocks to muni yields, and MMD/UST ratios were largely in check (Figure 5).

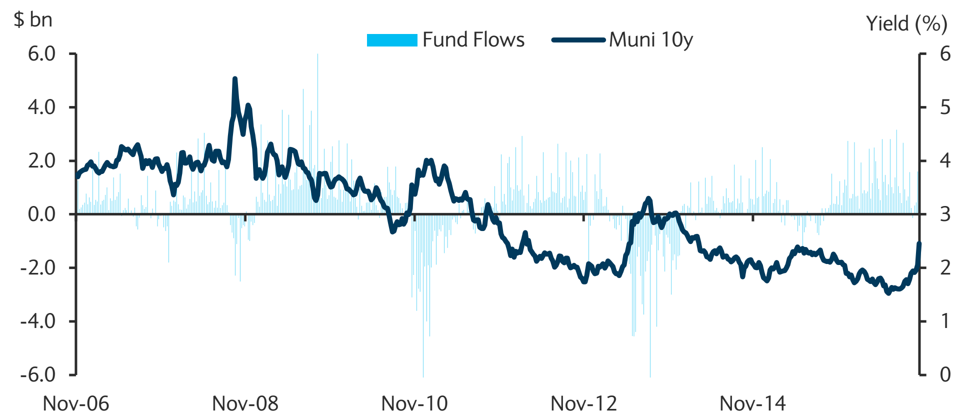
The situation is somewhat different now, as rates have likely hit their bottom and yields have started moving higher, while many investors are openly discussing the onset of a bear market for bonds. We believe that insurance companies and banks are unlikely to make any hasty decisions and are still trying to diversify away from Treasuries and corporates; nevertheless, they would still find munis much less attractive if corporate tax rates decline to the 20s, meaning that muni yields might have to go higher to account for changes in corporate tax rates (Figure 6). We do not see banks and insurers aggressively selling, though they could trim some of their exposure, but even if they stop buying, munis are going to be affected, especially in the areas where banks and insurance companies used to be very active (eg, 15-20y maturities and lower coupon bonds).

If rates continue to move higher, mutual fund retail investors are also unlikely to jump in (since they are typically driven by historical performance), and fund outflows are likely to continue to hurt mutual funds for a while, like they did in 2008, 2010 and 2013, when muni rates also spiked (Figure 7). Only after Treasury rates stabilize could we envision mutual fund retail investors coming back.

While we do not see a dramatic change in investor demand overnight, if tax reforms actually materialize and rates continue to move higher, the long-term demand picture for munis looks pretty bleak: banks might not be buyers (it is hard for them to sell since a large portion of their holdings are in hold to maturity books), P&C insurers might even start selling sporadically, and mutual funds will likely be struggling with outflows.

FIGURE 7

Muni Fund Flows vs. Muni Yields



Source: Lipper, Bloomberg Barclays Indices

Who will fill in the void? We see two main groups of investors: direct retail and crossover buyers. Anecdotally, direct retail has become opportunistically more aggressive already (there was a similar experience in 2013), and as we discussed above, in the aftermath of Reagan tax reform, direct retail filled the void and absorbed a large portion of holdings sold by banks (Figure 4). Meanwhile, crossover investors that already got more acquainted with the muni market get opportunistic when munis show weakness, especially when other risky markets seem to be in good shape (eg 2013, 2016). As discussed *here*, we expect crossover and possibly foreign investors to get more active if tax-exempts continue to show signs of weakness and muni-Treasury ratios remain elevated.

This is especially true for municipal high yield bonds, where muni HY funds are always the main driving force but are severely struggling with outflows at the moment. The HY muni market is unlikely to stabilize until either outflows stop or crossover investors jump back in, in our view.

For next year, if traditional buyers (banks, funds and insurers) are less aggressive, and the market relies on direct retail and crossover investors to provide a backstop, even if new issue supply declines (see our discussion below), the market environment will likely be difficult and volatile in the coming months, likely resulting in higher ratios and wider spreads.

Return forecast and portfolio positioning

2016 seems to have started and be ending with a similar pattern of skyrocketing Treasury rates and the muni market being under pressure. In January, this sell-off was attributed to a bleak global economic outlook driven by renewed worries about Chinese growth, and in November, it resulted from a Trump victory and higher inflation expectations, as well as prospects of a tax reform. The market recovered quickly after the January sell-off, which set the tone for a strong first half of the year for the municipal bond market, as the Bloomberg Barclays Municipal Bond Index generated a total return of 4.3% for H1 16. However, after the post-election sell-off, all the H1 gains have evaporated, and as of November 25, the muni index posted total returns of -0.12%. Given that muni levels have become much more attractive, a natural question is whether investors should employ their capital right now or wait. Below we discuss our return expectations for 2017 and provide our thoughts on portfolio positioning.

FIGURE 8

Tax-exempt AAAs: Base case expected returns in 2017

Maturity Bucket	Weight	Muni Duration	Treasury Duration	Current UST Yield	UST Forecast	AAA Muni / Treasury Ratio Forecast	AAA Muni Yield Change Forecast	Treasury Carry Contribution	Muni Carry Contribution	Muni Total Return	Muni Excess Return
2	14.6%	1.81	1.91	1.13%	1.50%	83%	0.15%	0.17%	0.16%	0.12%	0.06%
5	18.4%	3.87	4.79	1.85%	1.90%	85%	-0.05%	0.34%	0.31%	0.34%	0.05%
10	19.5%	5.98	9.10	2.37%	2.40%	95%	-0.09%	0.46%	0.46%	0.57%	0.16%
15	16.5%	7.66	10.13	2.51%	2.65%	105%	0.04%	0.41%	0.45%	0.40%	0.22%
20	12.2%	8.74	14.36	2.72%	2.90%	104%	0.06%	0.33%	0.36%	0.30%	0.28%
30	18.8%	10.61	20.52	3.02%	3.15%	100%	0.05%	0.57%	0.58%	0.48%	0.42%
Total								**2.28%**	**2.32%**	**2.21%**	**1.19%**

Source: Barclays Research

Forecasting returns for 2017

Base Case

In our base case scenario, we project AAA munis to return 2.2% in total return and 1.2% in excess returns. Additionally, we expect the AAA 5y, 10y, and 30y muni/UST ratios to reach 85%, 95% and 100%, respectively, by the end of next year, assuming that Treasury rates stabilize.

To arrive at this result, we started by using the 2017 rate forecast by our rates strategists to calculate the return attributed to US Treasuries. Additionally, we broke returns into two components: carry and muni/UST ratios. We also assumed that the new administration implements changes to the tax code and that the upper marginal individual tax bracket shifts down to the low 30s and to the low 20s for large corporations. We also broke down the components into each of the following maturity buckets: 0-3y, 3-7y, 7-12y, 12-17y, 17-22y and 22y+ so the returns could be compared with the similar-weighted Treasury index.

To determine the effect on ratios for each maturity bucket, we regressed AAA muni yields on Treasury yields, calculated fair value ratios based on the forecasted level of US Treasury rates, and factored in an adjustment to the new tax regime. Despite the positive backdrop of higher rates, muni ratios will likely be higher than the fair value forecast, due to the slower institutional demand discussed in the previous section. We also took into account some steepening of the yield curve, attributed to slower demand from banks and insurance companies. Using the durations above and the projected rate moves for each maturity bucket, we were able to forecast the total and excess returns for AAA municipals in 2017 (Figure 8).

FIGURE 9

Tax-exempt AAAs: Downside case expected returns in 2017

Maturity Bucket	Weight	Muni Duration	Treasury Duration	Current UST Yield	UST Forecast	AAA Muni / Treasury Ratio Forecast	AAA Muni Yield Change Forecast	Treasury Carry Contribution	Muni Carry Contribution	Muni Total Return	Muni Excess Return
2	14.6%	1.81	1.91	1.13%	1.50%	90%	0.25%	0.17%	0.16%	0.09%	0.03%
5	18.4%	3.87	4.79	1.85%	1.90%	95%	0.15%	0.34%	0.31%	0.20%	-0.09%
10	19.5%	5.98	9.10	2.37%	2.40%	107%	0.20%	0.46%	0.46%	0.23%	-0.18%
15	16.5%	7.66	10.13	2.51%	2.65%	120%	0.44%	0.41%	0.45%	-0.10%	-0.28%
20	12.2%	8.74	14.36	2.72%	2.90%	119%	0.49%	0.33%	0.36%	-0.16%	-0.19%
30	18.8%	10.61	20.52	3.02%	3.15%	115%	0.52%	0.57%	0.58%	-0.46%	-0.52%
Total								**2.28%**	**2.32%**	**-0.20%**	**-1.22%**

Source: Barclays Research

Using a similar methodology, we project total returns for the Bloomberg Barclays Municipal Bond index to be 2.3%, and excess returns to be about 1.3%. For each maturity bucket, and using the muni index weights, index carry, and index duration metrics, we regressed (using a three-year horizon) index yields-to-worst on Treasury yields and calculated fair value ratios based on our economists' UST forecasts and factoring an adjustment for a new tax environment.

Downside scenario

As discussed earlier, capping the tax exemption at about 28% might be an option for lawmakers who also want to replenish revenue lost from other tax reforms. This possibility is much less likely than the base case scenario, in our view, and poses a downside risk to our forecast. The main concern is not just a reduction in the value of the tax exemption by several percentage points, but also the fact that the muni tax exemption is curtailed, which investors might view as a breach of contract with long-lasting consequences for the muni market. As discussed, we do not assign a high probability to outstanding bonds being grandfathered in this case.

We expect ratios and spreads to move considerably higher if this strategy is pursued. Using a similar methodology as described in the previous section, and assuming a cap of 28% on tax-exempt interest, we project excess returns for AAA munis of -1.2% for next year. We expect the AAA 5y, 10y and 30y muni/UST ratios to reach 95%, 107% and 115%, respectively, by the end of 2017 (Figure 9).

Additionally, using the same methodology, we project excess returns for the Bloomberg Barclays Municipal Bond index to be -1.6% and total returns of -0.5%.

Outliers

We also see three possible outliers, but do not assign a very high probability to any of them: capping the muni tax exemption, while grandfathering outstanding bonds; eliminating it altogether; introducing no changes (or very small changes) to the tax code.

- If old bonds are grandfathered, they are likely to rally substantially, surpassing our base case scenario projections.
- If the muni tax exemption is indeed eliminated, as opposed to just being capped, it would cause a major market sell-off that would lead to outsized negative excess returns, much more drastic than considered in the downside scenario. We view this scenario as the least possible of all.
- Introducing no (or small) changes to the tax code seems somewhat plausible, given that in the past several years, policy talk has amounted to little or no real actions. Given how strongly Trump and the Republicans feel about overhauling the tax code, this scenario is also not very likely to us. However, given that a large tax cut to the upper tax bracket might meet strong opposition from the Democrats, it is possible that Trump might simply decide to pursue other goals initially and/or might want to do a token rather than a real tax cut to both corporate and personal income taxes. In this case, munis could perform substantially stronger than in the base case scenario.

Taxable Projections

Using a similar methodology for the Barclays taxable muni index, we forecast excess returns of 0.5-1.0%, with credit spreads moving 5bp wider by the end of 2017. Our credit IG strategists forecast 5-10bp of tightening next year, and typically taxable munis should benefit from this, given the high correlation with IG corporates (see *here*); however, muni-specific factors may cause spreads for the two asset classes to diverge next year:

- Taxable munis have become somewhat rich to corporate and tax-exempts after their strong performance in 2016, leaving less upside even if taxable spreads continue to tighten.

- As discussed above, we expect muni/UST ratios to remain elevated in most realistic scenarios. If issuing taxable bonds is not very costly compared with issuing tax-exempts, some municipalities might decide to place taxables as a result. The taxable muni market has averaged about $30bn of supply per year for the past five years, and this scarcity has somewhat helped taxable performance, though we expect taxable supply to increase (see below), which could have a small negative effect on taxable municipal spreads.
- A BAB-like program could also emerge under the Trump administration's "America's Infrastructure First" policy. If BABs are resurrected, larger negative effects of additional supply and of the long-forgotten ERP calls might occur. With respect to ERP calls, while there were few par calls, most were struck in a T+100bp range; many high grade credits are trading tighter than that, and the reintroduction of BABs might allow some high-quality issuers to call their outstanding bonds below their current levels (while refunding them with new BABs), resulting in mark-to-market losses to investors. If BABs are resurrected, some of the tighter IG credits could underperform as a result.

Portfolio positioning

As discussed above, we expect a relatively difficult and volatile year. If rates and ratios continue to move higher, portfolio allocations, timing and positioning should become extremely important:

- We recommend investing in better quality and more liquid credits across the board until there is more clarity with respect to tax reforms. We would prefer to trade up in rating and coupon and, in general, overweight defensive credits and sectors.
- Given that rates are widely expected to increase throughout the year and the curve is likely to steepen if inflation picks up, we would also prefer to shorten duration. If appetite from banks and insurance companies deteriorates, the 15-20y part of the curve could be especially vulnerable, since they used to favor it in the past.
- The tactical approach might come in especially handy this year. For example, levels could start 2017 relatively cheap, while supply could be underwhelming (see below), and large December coupon payments and redemptions should provide a positive backdrop for the muni market in January. Hence, munis could perform relatively well early on, and we recommend tactically overweighting the asset class going into 2017.
- Being contrarian and opportunistic might pay off: if healthcare comes under serious pressure, investors might pick up some cheap credits in this sector, because major changes to the ACA are unlikely in the near term.
- Taxable munis are rich, and we recommend lightening up and opportunistically switching into tax-exempts instead if possible.
- Crossover investors will be able to find abundant opportunities in the tax-exempt asset class next year, including high grade munis, tobacco, healthcare, corporate-backed munis and some other sectors.

Supply outlook

Long-term municipal issuance has maintained a strong pace in 2016 and is on track to surpass total issuance from last year. Municipal supply stands at $408bn through November 25, about $9bn higher than the total supply that came to the market last year. We expect full-year 2016 gross issuance of $435-450bn, an all-time record, exceeding the levels of 2009-10, when the Build America Bond (BAB) program was introduced. Accounting for current and advanced refundings, as well as maturing debt, net supply for the year should total $65-75bn (compared with the -$13bn annual average net supply over the past five years).

FIGURE 10

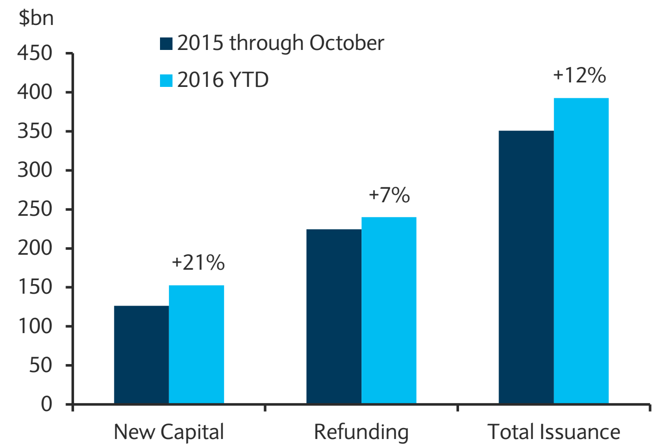
2017 Municipal Supply and Redemption Forecast Summary

	($bn)
Gross Supply	370
Tax-Exempt Supply	330
Taxable Supply*	40
New Money Supply	185
Refunding Supply	185
Total Redemptions	350
Net Supply	20

Note: * Taxable supply may surprise to the upside if a BAB-like program is implemented as part of the "America's Infrastructure First" plan.
Source: Barclays Research

FIGURE 11

Issuance This Year on Pace to Surpass Last Year's Total



Note: Year-to-date issuance data are through the end of October.
Source: SIFMA

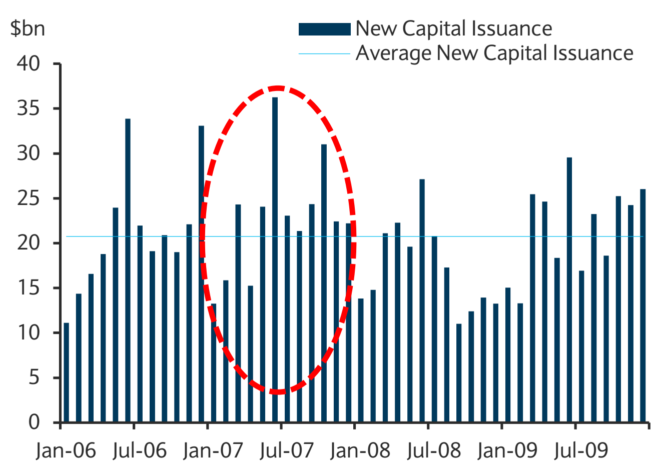
This would be the second year in a row that the muni market expands, following four straight years of contraction.

Refunding supply continued its strong trend from last year, and new money issuance also picked up; both were key drivers for the y/y growth in supply. As Figure 11 shows, issuance is 12% higher than last year, with refunding issuance up 7% and new capital significantly stronger y/y at 21%. This is surprising because issuance for the first half of the year lagged far behind H1 15 and full-year issuance was expected to come in lower than in FY 15. The low interest rate environment has fuelled both new capital and refunding issuance as states and localities look to take advantage of record low rates. The prospect of the US Federal Reserve raising rates in December has caused issuers to rush to the market.

Going into 2016, investors expected the Fed to continue to tighten, forecasting up to four rate hikes this year, as well as a 10y US Treasury yield of 3.2% at year-end. However, concerns about a poor global economic outlook, weak oil prices, sluggish H1 16 US growth, and heightened volatility brought on by the UK referendum vote to leave the European Union kept interest rates depressed. As a result, municipalities took advantage of the

FIGURE 12

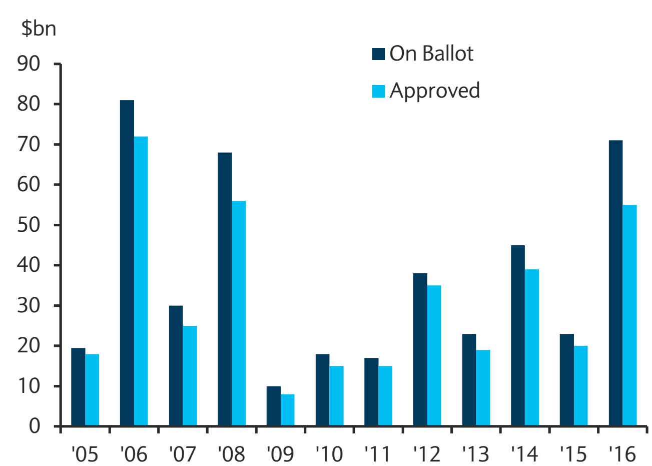
New Money Issuance in 2007 Was above Average



Source: SIFMA

FIGURE 13

Bond Ballot Measures Tend to Be Higher in Even Years



Source: Bloomberg

continued low rate environment to issue a record amount of bonds. The pace of issuance picked up considerably in the second half of the year as muni issuers looked to place deals before the US general election, as well as a likely Fed rate hike in December.

2017 Forecast

Unlike previous post-BAB era annual supply, this year's issuance will come in well above average. As stated earlier, long-term gross municipal issuance this year stands at $408bn, potentially surpassing the record $433bn issued in 2010. Given the likely upward drift in interest rates next year, we expect 2017 supply to be $360-380bn, down about 16% y/y, on the following considerations (Figure 10):

- Refundings: We expect total refundings (ie, current and advanced) to continue to compose a large portion of overall issuance next year, at $185bn (Figure 10). Current refunding activity in 2017 will be driven by the strong new money issuance of long-dated bonds a decade ago (Figure 12).
- As Figure 12 shows, there was a decline in new money deals in January-February 2007, which means that there should also be fewer refundings to start the year. Concerns about the future of the muni tax exemption and increased market volatility could also negatively affect issuance in 2017.
- Meanwhile, we believe advanced refunding activity will decline meaningfully y/y. With 30y AAA muni yields close to 3% and likely to drift higher next year, refunding economics for deals issued in recent years are less attractive. In addition, we think that $25-30bn of supply was pulled forward from Q1 17 to this year and is another reason for reduced issuance.
- To calculate the refundings portion of our 2017 issuance forecast, we incorporate all new money supply that has not been refunded and that was issued in and after 2006 and is callable in 2017, 2018, and the first six months of 2019. We assume that all bonds callable next year and in the first three months of 2017 will be refunded next year and that a portion of bonds callable in the following 18 months will be advance refunded. Our analysis excludes notes and derivatives.
- New money: We believe that 2017 new money supply will be up slightly y/y, at $185bn (Figure 10). An indication of annual new money supply is the number of bond issues appearing on ballot measures requiring voter approval. A big percentage of these ballot measures tend to be approved by voters, and typically, a larger amount of bond issues appear on ballots in even years than in odd. For instance, in 2016 (for 2017), about $70bn in new debt was proposed, with $55bn approved. This is more than double the amount that was approved on November 2015 ballots and the highest since 2008 (Figure 13).

One thing that could pressure new money supply in the first quarter is the newly elected governors. As supply typically declines in Q1 after newly elected officials settle into office, since issuing debt is unlikely to be their first order of business.

Taxable supply: For taxable issuance sold with muni CUSIPs, we expect about $40bn of supply in 2017 (Figure 10). This forecast reflects the advantage of issuing in the less regulatory-intensive taxable market compared with the tax-exempt market. There could be a substantial possibility of an upside surprise in taxable issuance next year. Factors supporting taxable supply in 2017 include:

- **Pension obligation bonds:** The funding gap between assets and liabilities continues to grow for state and local pension funds. In our view, the upward trend in rates, as well as the slow and steady growth of the US economy, might make issuers more inclined to issue pension obligation bonds (POBs). If both fixed income yields and equity market valuations start to move higher, it will provide a good environment for POBs, although issuers would need to gauge investor appetite for these bonds before coming to the market.

- **P3 issuance:** Public-private partnerships continue to be used by state and local governments to finance projects. The forward calendar of P3 issuance should continue to grow, and we expect it to chug along at the same rate as this year, with a substantial portion of the funding coming in taxable form.
- **Infrastructure issuance:** While there are few details at the moment, Trump envisions a $1.0trn infrastructure plan executed over 10 years. Build America Bonds (BABs) have been mentioned as a possible complement to other forms for project funding. If they are resurrected, we expect a potential upside surprise to issuance of $25-50bn next year, which would take away from tax-exempt supply. If implemented, the BABs would most likely have a subsidy of 25-28%.

Gross Supply: We expect 2017 long-term gross issuance of $360-380bn, down about 16% y/y. There could be an upside/downside surprise to our forecast if the following occur:

- Larger-than-expected advanced refundings if the Fed becomes more aggressive in its hiking cycle, flattening the yield curve (upside);
- Increased new money issuance, driven by spending in the infrastructure sector, especially if BABs are resurrected (upside);
- Increased market volatility and concerns about the future of the tax exemption (downside).

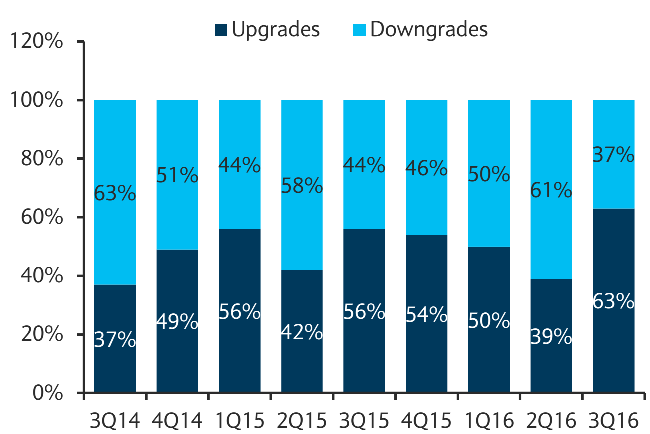
Credit themes

Overall, we expect stable credit performance across the market. Although the municipal market has underperformed due to the Republican victory in the November election, we do not expect credit effects for 2017. For the majority of municipal sectors, we believe that credit outlooks will benefit from incremental economic growth. We are also encouraged by the overall favorable rating upgrade/downgrade trend, which we expect to stay positive in the near term.

While issuer cost may move higher in light of the sharp increases in yields and subdued investor demand, rates have been at historic lows and are still not far away from them. A more difficult market environment could provide some obstacles, but mainly for smaller, lower-rated issuers. Hence, we favor the “up-in-quality” approach, though opportunistically some lower-rated credits provide a good spread pick-up.

FIGURE 14

Q/Q Upgrade/Downgrade Ratio 2014-16



Source: Moody’s

FIGURE 15

US Median Major Tax Forecast Growth

Year	Personal Income Tax Forecast	Sales Tax Forecast
2016	3.7%	3.1%
2017	4.0%	3.8%
2018	4.6%	2.9%

Source: Rockefeller Institute

State and local credits

We expect a flat yet stable state and local credit outlook in 2017, as subdued economic growth warrants flat total revenue collection expectations. Quality names other than oil-dependent states, coal dependent states and those that were significantly helped by Medicaid expansion should remain stable in 2017, while upgrades have been substantially exceeding downgrades as of late (Figure 14).

Total tax revenues continue to improve marginally (Figure 15). Real US GDP has increased slowly in 2016 and is forecasted to grow about 2.2% next year, which would support state budgets. In the event interim 2017 revenue indicators underperform state budget assumptions, we would expect policymakers to employ offsetting expenditure cuts where necessary. Tax reform might also be beneficial to states, as it is likely to increase discretionary spending.

In general, we like states with large, diversified economies able to engage full segments of the labor pool. For example, California and Florida have been able to strengthen their fiscal positions. In both, prudent governance has helped to reduce previous budget deficits through conservative spending and eventually led to better liquidity and healthy reserves.

At the local level, we also expect a slightly improved credit outlook due to a growing economy, leading to increased revenue collection. The 2016 City Fiscal Conditions Survey by the National League of Cities (NLC) reported that overall, general fund revenues at the local level grew 3.7% in 2015 and are expected to grow 0.5% in 2016. Taking into account the pro-growth economic policy the Trump administration will most likely pursue, we think general fund revenues at the local level will continue to increase in 2017 and beyond.

Another positive for local governments is that property tax revenue growth has returned to pre-recession levels with an increase of 3.8% in 2015 and 2.6% expected in 2016. According to our economists, the housing sector has further room for improvement, and they expect moderate increases in home prices of 5.0-5.5% in 2017. The continued growth in housing will increase assessed values and therefore lead to increased property tax revenues for local municipalities.

While we are mostly comfortable and recommend overweighting the state GO and, to a lesser extent, the local GO sector, staying mainly in stronger credits, there are some strong headwinds:

- Underfunded pension liabilities have grown to a dangerously high level; we believe that some credits are already beyond the point of no return and there could be some credit events, though likely further away (see *here*), although stronger equities and higher rates could reduce pension liabilities for many state and local municipal credits.
- In addition, any proposed cuts to federal entitlement payments under healthcare reform will eventually pressure state budgets, notably those with Medicaid expansion. Although we do not expect significant movement on the ACA reform front in 2017, even gradual reduction in Medicaid/Medicare transfers will affect states, which will have to devise ways to offset cost effectively such that it and its escalation are absorbed.
- Oil dependent state and local credits in Arkansas, New Mexico, Oklahoma, Louisiana, and North Dakota will continue to be affected by decreased oil revenues. Depressed oil prices and slowing industrial production in the related industries of storage, drilling and refining are not expected to rebound in 2017. The prolonged downturn in the oil sector has caused weakness in other related tax collections – sales, income tax and corporate – resulting in contracted budgets for these states.
- Coal-dependent state economies (Kentucky, West Virginia and Wyoming) are in recession with credit pressure also percolating at the local level. Coal production is threatened by

cheaper natural gas and decreased demand due to unfavourable emissions and higher relative costs of production. We are cautious on these states and their local credits, as they are not expected to develop diverse economic replacement activity in the near term, though the Trump win should be beneficial for these credits near term.

Healthcare: Caution is warranted

We expect the healthcare sector to underperform near term until a determination on the ACA policy is announced. Should it not be changed for some time, there could be value in healthcare credits if they become cheap enough. Until then, we strongly recommend trimming overall exposure while mainly overweighting stronger, well-diversified hospital systems.

Healthcare reform is poised as a priority issue at the federal level, although we cannot gauge the affect of specific components. President-elect Trump's healthcare policy positions are evolving as the transition team assumes leadership.

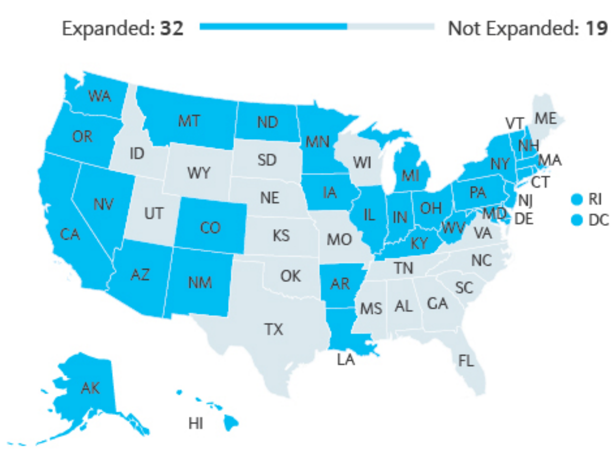
For now, we do not see near-term operating negatives for most high grade credits during the government transition. Operating performance remains subject to all existing payment and service arrangements. Scenarios will likely be proposed in which a policy change may create extreme market disruption, but until such time as the new model is formed and implemented, such scenarios are not likely. We believe that some healthcare credits that have greatly benefited from the ACA expansion could be vulnerable under repeal.

Figure 16 maps the states already subject to Obamacare expansion. Those that have deferred expansion mostly mirror states that strongly carried Trump and the Republican Party to victory, presumably due to strong sentiment for a repeal of ACA and other Obama initiatives, which provides Republicans with more flexibility in dealing with the Medicaid expansion, which has been steadily increasing (Figure 17).

Policy experts have proposed a general timeline for reform implementation absent a filibuster. One scenario assumes the new Congress grants states authorization to exercise greater latitude to pursue aggressive Medicaid reforms almost immediately. Then, the GOP proposes a federal budget resolution and passes it, thereby allowing budget reconciliation legislation to repeal the ACA. Upon repeal, transitional reforms are implemented to prevent market disruptions in insurance coverage. Finally, the implementation of extensive replacement healthcare legislation occurs. Overturning a Democratic-led Senate filibuster preventing a vote to repeal/replace ACA would require 60 Senate votes, and Republicans have only 51. Crossover votes would be necessary.

FIGURE 16

Status of State Medicaid Expansion 2016



Source: Center on Budget and Policy Priorities

FIGURE 17

Healthcare Provider Reimbursement Trend

Reimbursement	1990	2000	2010
Commerical	42%	39%	35%
Medicare	35%	38%	39%
Medicaid	10%	13%	16%
Other	6%	1%	2%
Bad Debt	5%	6%	6%
Non Patient	3%	3%	2%

Source: American Hospital Association

In case of the repeal of Obamacare, hospitals will be vulnerable to increases in uncompensated care. Replacing 100% cost reimbursed by Obamacare coverage with lower funded coverage will expose providers to bad debt and unreimbursed care costs. The number of uninsured and underinsured will likely increase near term as repeal moves Medicaid expansion enrolees (those under age 65, non-disabled adults) to other coverage. Those in favor of repeal hope to eliminate the projected expansion state share cost of $9bn by 2024 and reduce the federal/state combined share cost of $920bn.

Seeing value in higher education

Higher education bonds may be viewed as a defensive position for 2017. We prefer premier college trades over small, lower rated institutions. Stanford, Harvard and Princeton are attractive buys, in our view, as are higher rated public state systems such as Indiana University, University of Virginia and Texas A&M Permanent University Fund. Texas bonds are payable from its sizeable endowment; UVA has low appropriation funding at 10%; and while Indiana receives appropriations, the credit is strong and these funds do not secure the bonds.

Areas of sensitivity for this sector include enrolment mix, tax exempt status inquiries, and appropriation trends.

We expect the higher education sector to continue to focus on core academic strengths and draw students to the specific institutions from a variety of markets, garnering incremental tuition pricing flexibility. Colleges market to traditional and new markets as a means to increase enrolments. Enrolment trends and incremental tuition have helped sustain steady operating results. One pocket of enrolment marketing is the international student base. There has been great success in attracting internationally based undergraduate and graduate students to US universities. Over time, this segment of students has added significantly to the percentage of the US student population mix (Figures 18-19). We do not think this market segment will be largely affected by recent political rhetoric, but there could be some fallout, especially for smaller, less-known institutions.

Endowments at premier colleges have grown tax free over time and resulted in significant wealth accumulation. Some critics have suggested these endowments be required to provide an annual portion of the fund as scholarship awards as a condition of tax-exempt status. This would also free up federal and state student loan programs for financial assistance at lower-tier colleges. At present, there is no regulatory requirement to fund any portion of profits for scholarships. There is also an argument to level the playing field between larger endowed colleges with smaller endowed colleges by the alteration of the tax-exempt status of the wealthier institutions. In that scenario, smaller colleges can continue to benefit from tax-free wealth accumulation, while larger endowments pay taxes and assume a more proportional wealth level.

State appropriations for public universities have been on the decline in recent years. For example, Pennsylvania, New Jersey, and Louisiana have reduced their operating appropriations to state-funded institutions. This has occurred primarily due to state budget growth and accompanying expenditures. Over-dependence on appropriations in the university budget is a credit negative for those systems experiencing cuts in state funds. The legislative trend of awarding fewer funds to education may continue. Ultimately, reduced appropriation puts pressure on public colleges to produce alternative resources.

However, we do not consider these developments likely to have an effect in 2017 and like the current valuations and defensive characteristics of this sector.

FIGURE 18

Increasing International Student Base

Year	International Students ('000s)	US Total ('000s)	% of Total
2011-12	764	20,625	3.7%
2012-13	820	21,253	3.9%
2013-14	886	21,216	4.2%
2014-15	975	20,300	4.8%
2015-16	1,044	20,264	5.2%

Source: Institute of International Education

FIGURE 19

Countries of International Draw for US Higher Education

Country of Origin	2014-15	2015-16	% of Total	Change (y/y, %)
World Total	974,926	1,043,839	100	7.1
China	304,040	328,547	31.5	8.1
India	132,888	165,918	15.9	24.9
Saudi Arabia	59,945	61,287	5.9	2.2
South Korea	63,710	61,007	5.8	-4.2
Canada	27,240	26,973	2.6	-1
Vietnam	18,722	21,403	2.1	14.3
Taiwan	20,993	21,127	2	0.6
Brazil	23,675	19,370	1.9	-18.2
Japan	19,064	19,060	1.8	0
Mexico	17,052	16,733	1.6	-1.9
Iran	11,338	12,269	1.2	8.2
UK	10,743	11,599	1.1	8

Source: Institute of International Education

Defensive power sector

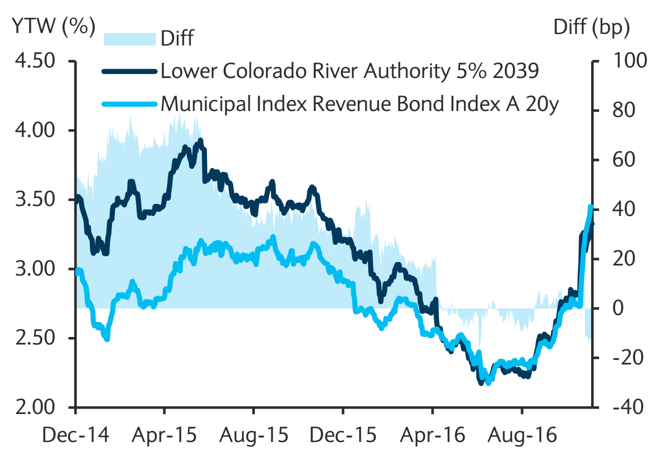
We advocate power bonds for quality defensive investments. Power bonds are well positioned due to continued operating stability from low natural gas prices, flat demand growth, independent rate-setting and low debt issuance. We continue to recommend power bonds with limited coal fired dependence and moves toward renewable resources. These bonds include Lower Colorado River Authority, Texas; San Antonio Electric and Gas, Texas; and Austin, Electric Utility Revenue, Texas (Figures 20-21).

Credit positives focus on independent rate setting. Many municipal utilities have employed disciplined rate increases to satisfy operating, maintenance and capital costs, while others have increased rates to recover project costs in renewable energy generating units. Some operators have kept rates steady in response to flat demand and adequate generating capacity, which has solidified price competitiveness.

It seems inevitable issuers will be compelled to reduce carbon intensity with cleaner and renewable energy sources in the generation mix. Natural gas prices remain very low, especially compared with coal prices. Gas plants take less time to construct, are more energy and generation efficient and cost less to operate than coal plants.

FIGURE 20

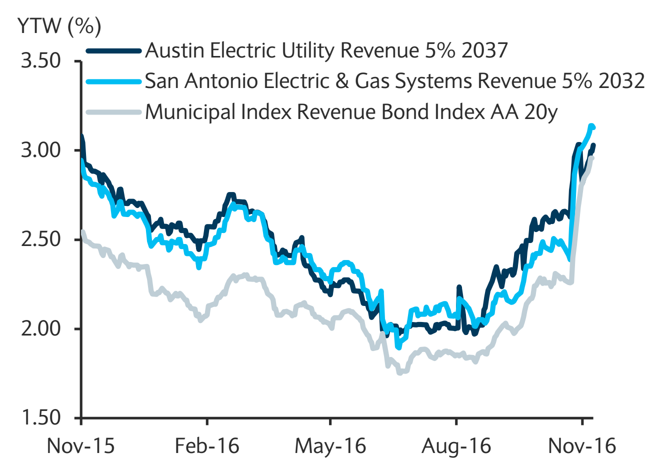
Lower Colorado River Authority, Texas



Source: Bloomberg Barclays Indices

FIGURE 21

Austin, Texas Elec and San Antonio, Texas Elec & Gas



Source: Bloomberg Barclays Indices

It remains to be seen how Trump's pre-election posture supporting the coal industry changes, as well as his position on the Clean Power Plan (CPP), though it is a clear positive to this sector. Outstanding CPP litigation and any federal policy changes to the carbon reduction initiative are not expected to affect the sector in 2017. Until a decision is handed down, CPP implementation is stalled.

Tobacco for crossover investors

For investors with the right risk profile, we think that MSA tobacco bonds offer a compelling opportunity. In particular, high yield tobacco bonds have underperformed the broader high yield muni index, and we think they offer attractive value. The case is even more compelling when we compare the index with corporates. While high yield corporates have returned about 15% year-to-date, tobacco bonds have generated returns of about 2% in the same period. We think this is a compelling relative value opportunity, especially for crossover buyers looking to diversify from the traditional corporate high yield space.

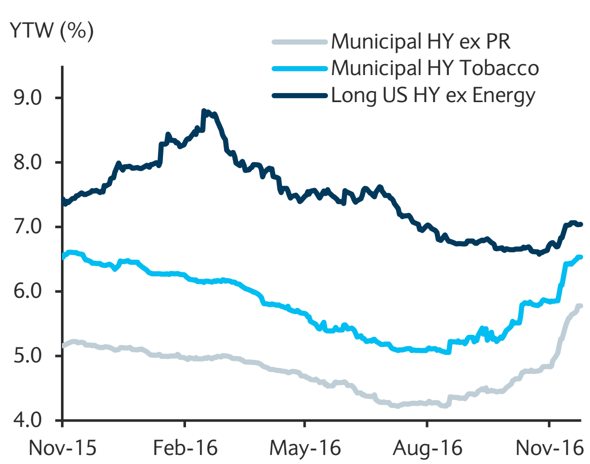
Fundamentals remain solid within the Tobacco sector. The passing of California Proposition 56 to raise the cigarette tax is a negative. However, a stronger economy, led by growth in the manufacturing sector, a possible increase in the minimum wage, and lower individual income taxes, should lead to an increase in personal consumption and discretionary spending. As a result, we expect demand for tobacco products to continue and help offset the drop in sales anticipated from the California measure.

Meanwhile, high yield fund outflows will need to abate for the sector to stabilize, and we believe crossover buyers, who are mostly out of the tobacco sector right now, will start getting active in the space again. In terms of yields, tobacco bonds trade about 51bp through the maturity-matched high yield corporate index, the narrowest yield differential in over a year (Figure 22). From a dollar price perspective, tax-exempt high yield tobacco bonds have sold off substantially, with bonds down $6-10 in a span of two weeks (Figure 23).

Prepaid gas: Getting more attractive

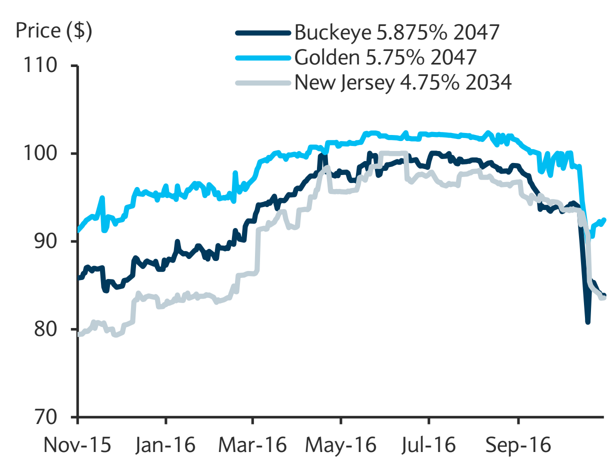
Much like the rest of the muni market, US muni prepaid gas bonds, which are backed by financial services firms, have come under pressure in the past few months. However, financials have outperformed in recent weeks, with corporate credit spreads tightening 3bp and stocks rallying about 16% due to the Trump victory and suggestions about easing of the Dodd-Frank Act, as well as a sharp steepening of the yield curve.

FIGURE 22
HY Tobacco Has Underperformed HY Munis and Corporates



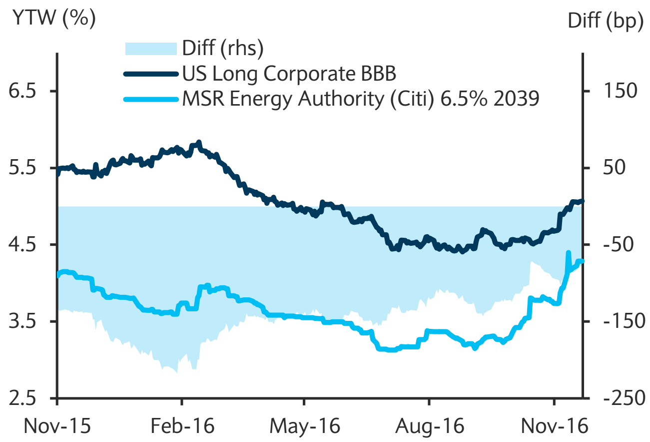
Source: Bloomberg Barclays Indices

FIGURE 23
HY Tobacco Bonds Have Sold Off



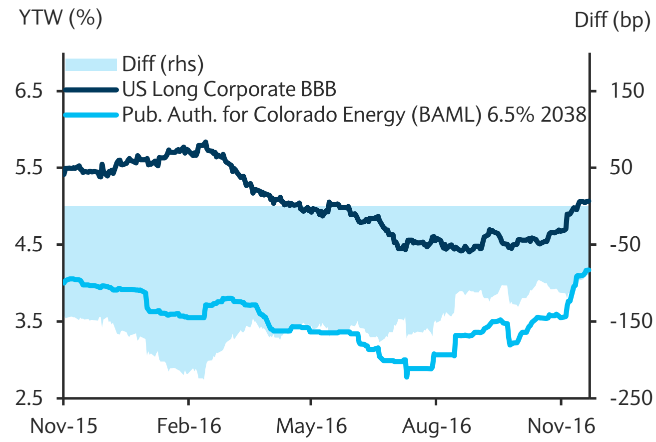
Source: Bloomberg Barclays Indices

FIGURE 24
Prepaid Gas: MSR Energy 6.5% 2039 (Citi)



Source: Bloomberg Barclays Indices

FIGURE 25
Prepaid Gas: Colorado Energy 6.5% 2038 (BAML)



Source: Bloomberg Barclays Indices

The potential easing of financial regulations and the steepening of the yield curve should be supportive of net interest income growth for the corporate banking sector, and any strength in financials may eventually translate to positive performance in muni prepaid gas bonds. The bonds have cheapened substantially, with their yield-to-worst differentials to the quality and maturity-matched Barclays Muni index at their tightest in over a year, and look attractive from a relative value standpoint. The case is also compelling for crossover investors, as the differentials relative to the corporate index are also at their tightest in over a year (Figures 24-25).

We see value in large, liquid names that have sold off $10-15 since hitting year-to-date peaks in August. In particular, we like long non-call bonds such as the Salt Verde Financial Corp 5s of 2037 (backed by Citigroup), the Public Authority for Colorado Energy 6.5s of 2038 (backed by BAML), and the MSR Energy Authority 6.5s 2039 (backed by Citigroup) that could provide good comps to corporate bank debt. All are BBB-rated issues with durations of about 13 and currently trade 88bp, 90bp, and 78bp, respectively, through the long BBB corporate index, which has a duration of 13. This is well off their 2-year average differentials of 125bp, 132bp, and 118bp, respectively, through the index.

Crossover investors should monitor this sector and be able to find good value in it in the near future.

Puerto Rico: Good news is priced in

Upon the enactment of PROMESA, a temporary stay went into effect that shielded Puerto Rico and its entities from any litigation until February 2017. On November 16, the Commonwealth released its FY17 projections, presenting a bleak liquidity picture. The island stated that it will be unable to pay overdue debt service of $1.3bn due in February, when the moratorium shielding Puerto Rico and its entities from any litigation expires. The Commonwealth also stated that it will not be able to make the regularly scheduled March through June 2017 payments totalling about $930mn.

Market participants are focused on the fiscal plan that the seven-member Oversight Board is looking to finalize with a target date of January 31, 2017. By then, the Board is looking to enact a long-term fiscal plan that addresses Puerto Rico's spending-to-resources imbalance and provides a basis to promote long-term economic growth. In mid-October, Governor Padilla submitted a 10-year fiscal plan, but the Board concurred that it relied too much on additional federal aid to solve the island's problems and asked for a revised plan; however, Governor Padilla rejected this request.

Incoming Governor Ricardo Rossello has yet to present a formal plan, given that he does not take office until January 2. He has projected a bondholder-friendly image and appears keen to work with the Board on the fiscal plan. While investors might view him as friendly to the market, the Oversight Board is looking to make a strong impact with its fiscal plan, with some members stating that "substantial, deep restructuring is necessary" and that "additional reforms and additional cutting [are] required."

We expect Puerto Rico bonds to remain volatile in 2017, and at current levels we would caution against adding exposure, as we believe too much optimism is built in and the upside is probably limited. We have discussed our general outlook on final recoveries of various PR entities *here*.

STRUCTURED CREDIT

In a tight spot

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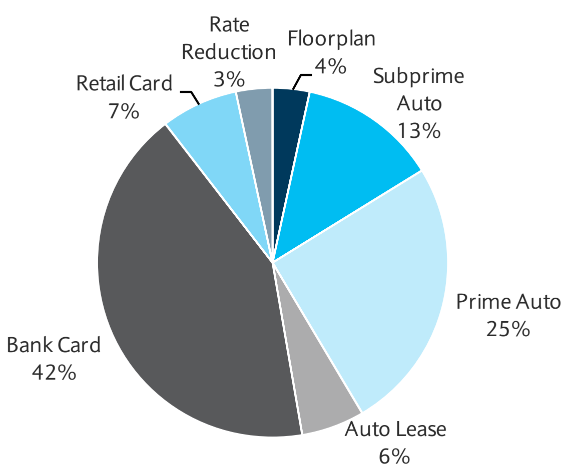
- **With most consumer ABS spreads at multi-year tights, we favor short-dated floating rate assets, which should benefit from a potential curve flattening (based on our rates team's forecast); however, we think there are compelling opportunities in subordinates and more off-the-run sectors, which have not benefited as much from this year's rally, with some asset classes trading wider than they did a year ago.**
- **With $191bn priced through November 25, the ABS market is unlikely to breach the $200bn mark and thus post a decrease from last year's volumes. We are forecasting an increase in issuance next year, with our base case estimate totaling $200-210bn, driven primarily by growth in the credit card sector due to a large stock of maturing paper.**
- **Collateral fundamentals are mixed across the traditional ABS sectors. Credit card and student loan performance remains robust, while performance in auto loan and equipment ABS continues to weaken. Fundamentals will continue to be a concern in 2017, but should remain contained.**

Overview

The securitized credit market posted a solid year, as fundamentals remained generally positive, and technicals supportive, compressing spreads to historical tights and generating strong returns. Through Friday, November 25, the Bloomberg Barclays US Fixed-Rate ABS Index had posted total returns of 2.10% and excess returns over swaps and treasuries of +141bp and +111bp, respectively, positioning 2016 as the best returning year since 2012. For lower beta ABS that is part of the Bloomberg Barclays Aggregate Index - namely AAA prime autos and credit cards (Figure 1) - we do not see much room for further tightening in 2017. With current spread levels at multi-year tights, we believe there are downside risks from a likely increase in credit card supply next year and continued weakening fundamentals in the auto sector. While we don't necessarily call for material spread widening, we think a general tightening trend like we've seen this year is unlikely from the

FIGURE 1
Bloomberg Barclays Fixed-Rate ABS Index Composition



Note: 90% of the index is rated AAA. Index constituents as of 25 November. Source: Bloomberg, Barclays Research

FIGURE 2
Bloomberg Barclays Fixed-Rate ABS Index Starting Spread and Total Returns

Period	ABS Agg.	ABS Agg.	Credit Card	Auto
	BOP LOAS (bp)	Total return (%)		
2011	+65	5.14	6.36	2.21
2012	+60	3.66	3.85	3.01
2013	+31	-0.27	-0.84	0.71
2014	+45	1.88	2.36	1.23
2015	+42	1.25	1.39	1.02
2016	+67	2.10	2.08	2.13
Current	+37			

Note: 2016 returns are as of 25 November. Libor OAS is as of the start of the year. Source: Bloomberg, Barclays Research current L-OAS level of +37bp (Figure 2). Therefore, we think total returns will accrue mainly from carry next year. Our base case forecast is for total returns in the Bloomberg Barclays US Fixed-Rate ABS to be 1.0-1.5% and excess returns of up to +50bp.

Looking forward to 2017, fundamental concerns exist but should remain contained. Against a backdrop of a generally benign macro environment, some cracks began to emerge in 2016 that directly affect the ABS market. Softening in used car prices, higher delinquencies and losses in the unsecured personal loan space (both traditional and marketplace), negative same store sales in the quick service restaurant (QSR) industry, and continued deterioration in subprime auto loan performance will continue to weigh on their respective sectors in 2017. Furthermore, overcapacity and slower trade growth in the shipping industry, as well as uncertainty stemming from the Hanjin bankruptcy, will keep container ABS investors vigilant.

In contrast to the ABS market, the equity markets were disproportionally affected by small deteriorations in collateral performance, as many investors have been spooked by the spectre of a turn in the credit cycle. After Synchrony and OneMain reported increases in delinquencies and charge-offs earlier this year, their equity sold-off dramatically, falling around 13% and 39%, respectively. Likewise, Hertz's recent write-off and increase in depreciation expense, due to weak used car prices, caused the company's stock to tumble over 23% earlier this month. However, ABS bond prices from Synchrony's credit card ABS master trust (SYNCT) and OneMain's personal loan shelf (OMFIT), as well as Hertz's rental car master trust (HERTZ), were mostly unchanged. Sufficient credit support and structural protections allowed the ABS market to treat these as non-events, in our opinion. However, as monetary policy gives way to fiscal policy, we expect higher spread volatility in the securitized credit markets in 2017, which should cause the ABS markets to be more reactive to small deteriorations in credit fundamentals.

That said, supportive fiscal policy under the Trump administration, as well the potential roll-back of regulations, should benefit most ABS asset classes. Equipment lease/loan ABS would likely benefit under a large infrastructure plan, as would private student loan lenders amid a pull-back of the Direct Lending Program (DLP). Meanwhile, less oversight from the CFPB would be a positive for both subprime auto and student loan ABS. On the other hand, the container leasing sector could continue to experience headwinds if tariffs end up being instituted.

Relative Value and Portfolio Positioning Going Into 2017

Demand remains strong for high-quality, liquid paper and investors continue to put money to work in the primary market, despite spread levels that are at or close to historic tights. Indeed, most new issue transactions this year have been consistently oversubscribed, with investors receiving significantly scaled-back allocations. This situation has bolstered the secondary market as investors turned there for the supply they could not acquire in the primary market, causing securitized credit spreads to trend tighter for most of the year. As a result, today's market stands in stark contrast to the start of the year, when spreads were much wider, making the entire asset-backed space look attractive. Unfortunately, the market as a whole no longer appears cheap. As such, it's become harder to find value across the ABS market, but pockets of opportunity still exist.

In order to counteract potential volatility next year and to capture additional yield from a backup in front end rates (*Brave New World*, 17 November 2016), we prefer short dated floating rate assets; however, we think there are some compelling opportunities further out on the curve as many of the off-the-run asset classes haven't benefited as much from this year's rally, and some are even trading wider than they did a year ago.

FIGURE 3

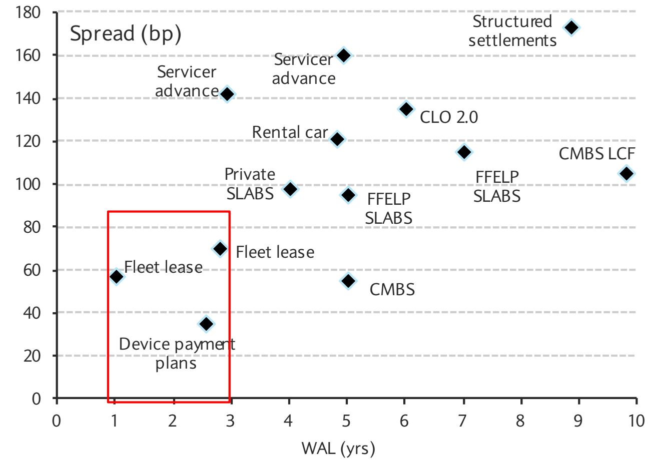
Shorter-dated ABS (bp, red box to the right…)

Sector	1y	2y	3y
Private student loans	60	77	90
FFELP student loans	40	55	60
Subprime auto	33	38	-
Retail card	23	35	42
Dealer floorplan	23	33	43
Equipment	17	27	35
Auto lease	15	26	-
Bank card	13	22	28
Prime auto	9	15	24

Note: Spreads represent on-the-run securities from benchmark, top-tier issuers.
Source: Barclays Research

FIGURE 4

AAA Spread Comparison across Sectors (N-spread/DM, bp)



Note: Spreads represent on-the-run securities from benchmark, top-tier issuers.
Source: Barclays Research

Relative Value at the Top of the Capital Stack

Over two-thirds of securitized credit is AAA-rated. Given the prominence of AAA debt, we survey some of the sectors with bonds available at this rating level in an effort to assess relative value. The current credit enhancement levels on AAA bonds across the securitized credit universe are sufficient, in our view, such that principal losses are unlikely in anything but a catastrophic scenario. As such, at the highest rating level, our main focus is limited to spreads (Figure 3 and Figure 4) and liquidity, since credit concerns are often secondary at this part of the capital stack.

Shorter-Dated

Within the consumer ABS space, we think that floating rate student loan ABS (both FFELP and private) look most attractive and should outperform in 2017. SMB and NAVSL spreads have rallied 80-90bp since the beginning of the year, but still trade 30-60bp wider than other consumer ABS asset classes. The entire student loan sector has been trading at wide levels following Moody's and Fitch's announcement that the vast majority of outstanding FFELP ABS will be under review for downgrade. The resolution of the rating agencies' review, which we expect to be complete in the coming months, will remove a significant headwind for the sector, which could lead to additional tightening in 2017.

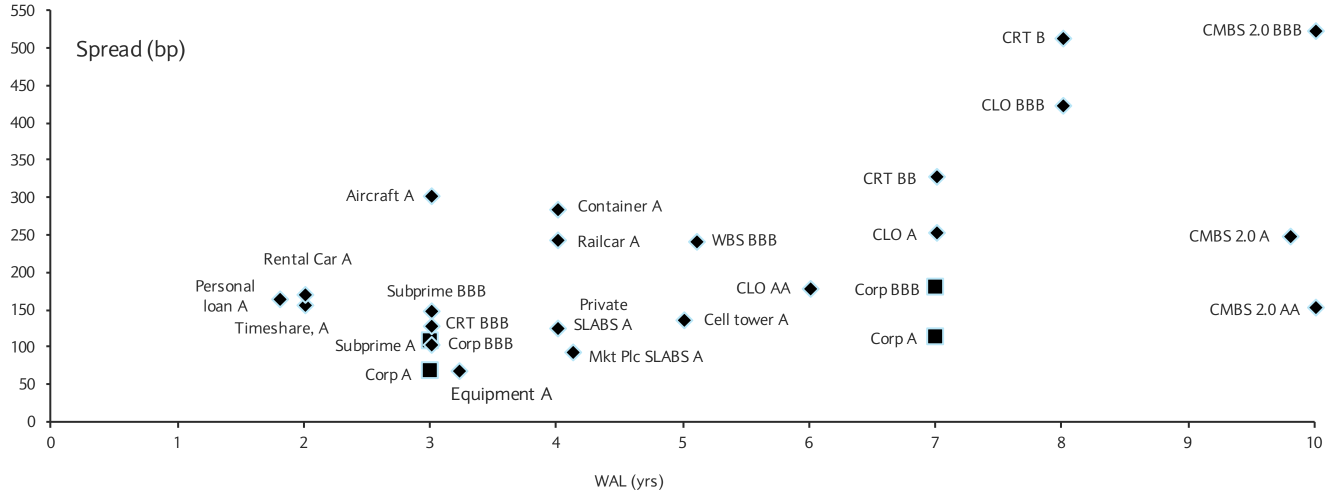
We also see value in retail and cross-border bank credit card ABS, which trade 15-25bp wider than bank cards, more than compensating for the lower liquidity, in our view. Meanwhile, we are more cautious on subprime auto AAAs from off-the run issuers, as the basis to prime autos is historically tight. We would expect spread underperformance in this sector in any risk-off environment, similar to what we saw during the early part of this year.

Longer-dated

Further out the curve, we think that CLO 2.0 and SLABS (FFELP and private) offer the most value within the AAA securitized credit universe. CLO 2.0 secondary AAA spreads have tightened 20bp this year, to 135DM, and are substantially wider for some second-tier managers, while spreads on SLABS with a 4-5y WAL are hovering around 95-105DM. To earn additional spread pickup, investors may also want to consider some of the more off-the-run AAA asset classes, particularly servicer advance. Despite the possibility for headline risk and mark-to-market volatility, we continue to find servicer advance deals extremely attractive for investors who are willing to hold to maturity. Finally, for AAA investors seeking

FIGURE 5

Non-AAA IG Relative Value



Source: FINRA, Barclays Research

higher absolute yields and who do not mind longer spread duration, we advocate supplementing CMBS LCF AAAs with structured settlement ABS.

Relative Value Below AAA

Moving further down the capital stack to non-AAA IG credit, opportunities to pick up spread are plentiful. Even with the significant credit rally, most of the non-traditional ABS sectors are trading above corporate credit (Figure 5). Unlike AAA bonds, senior investment-grade and middle mezzanine bonds have some small risk of principal losses. However, enhancement levels for new issue structured credit, across asset classes, appear high enough that principal losses remain unlikely except in a severe downturn. That said, the relative risks below AAA-rated debt becomes more of a subjective judgment and a matter of investors' personal preference and the risks they are most comfortable taking.

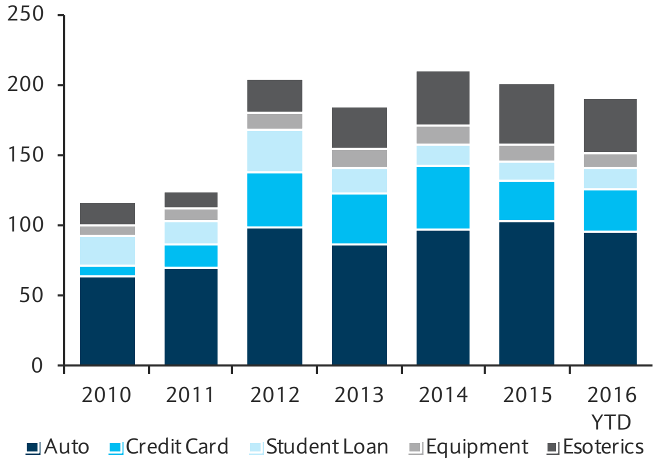
Some of the sectors that offer the best value, in our view, are short-dated personal loan senior bonds at the 1y WAL, A-rated containers from benchmark shelves (see *Containers: Differentiation through Performance*, 21 October 2016), and marketplace refi SLABS, especially from shelves that trade wide of SOFI, but are still backed by pristine collateral at the 4y WAL. At the 4-5y WAL, BBB-rated WBS for corporate exposure offer over 100bp pickup to BBB corporate bonds. We generally like bonds from issuers with name brand recognition, like Taco Bell, Dunkin, and Dominoes. For investors with longer-term investment horizons, CLOs and CMBS mezzanine tranches offer value, though we prefer CLOs, because floating rate coupons will serve investors well if the backup in rates continues and the curve flattens.

We generally like bonds from perennial issuers, which have demonstrated their collateral's resiliency through economic cycles, as well as their ability and willingness to step in via advances, clean-up calls, or other measures. We believe this is doubly important at the present time, when spreads are at multi-year lows for some sectors, while others such as auto loans are signalling challenges ahead for which spreads have yet to meaningfully respond.

Sizing Supply

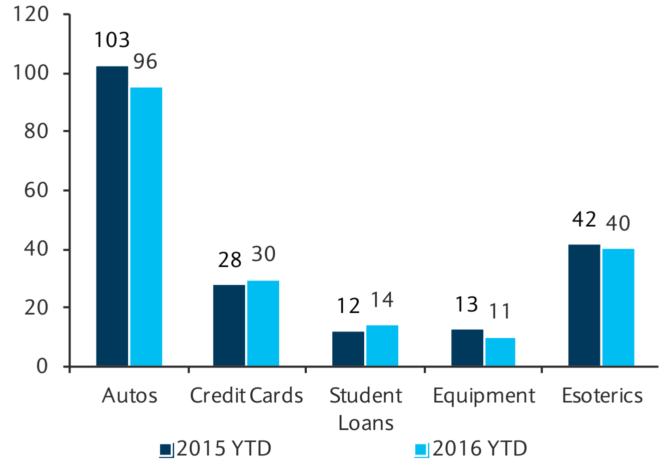
The ABS market continued to expand, but at a slower pace than previous years. Total ABS outstanding increased just $2bn from the end of 2015 to $714bn by Q3 16; however,

FIGURE 6
Historical ABS Issuance ($bn)



Note: 2016 issuance is through 25 November. Source: Bloomberg, Barclays Research

FIGURE 7
Year-Over-Year Comparison of ABS Issuance ($bn)



Note 2015 and 2016 issuance is through 25 November. Source: Bloomberg, Barclays Research

primary issuance volumes will likely decline for the second straight year, with full-year issuance estimated to be just shy of $200bn (actual YTD issuance of $191bn through November 25), compared with total issuance of $201bn and $211bn in 2015 and 2014, respectively (Figure 6). The y/y decline in primary market activity was primarily driven by a decrease in auto-related issuance; however, the equipment and esoteric sectors also saw decreasing volumes in 2016 (Figure 7).

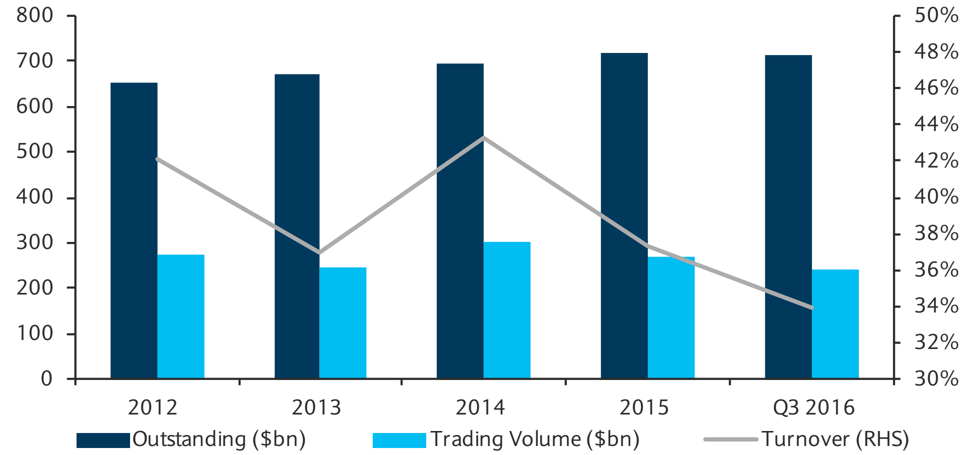
Looking ahead to 2017, we expect an increase in issuance volumes and forecast $200-210bn, driven primarily by growth in the credit card sector due to a large stock of maturing paper (see *Sizing Supply in the ABS Market*, 10 November 2016). Likewise, we expect the esoteric ABS sector to expand, albeit at a slower pace than credit cards, as Verizon and potentially other telecoms tap the market in order to fund their mobile phone loans and leases (see *Funding Phones in the ABS Market*, 12 August 2016). Meanwhile, issuance in the auto-related space will likely decrease marginally in 2017 due to plateauing vehicle sales and tightening underwriting standards, while student loan and equipment ABS issuance should remain roughly flat. We note that volatility could rise next year under a Trump presidency, which could weigh on spreads and sideline some issuers if the cost of ABS becomes prohibitively high. Additionally, as issuers grapple with the new risk retention rules coming into effect on Christmas Eve, and auto issuers adjust to the new reporting guidelines required under Regulation AB II, supply during the early part of next year may be subdued.

Liquidity Continues to Fall

Although ABS debt outstanding increased $2bn since year-end 2015, the average amount outstanding in 2016 declined $7bn compared to the average throughout 2015. Trading volumes also fell y/y, but a faster rate, causing annualized market turnover to continue its multi-year decline (Figure 8). At around 33.5%, turnover is a full 9ppt lower than in 2014 and 3ppt lower than in 2015.

FIGURE 8

Annualized ABS Turnover



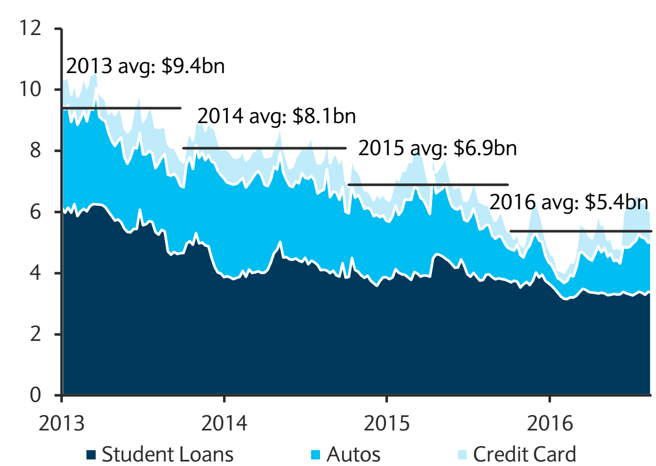
Note: Using average quarterly outstanding figures. Source: FINRA, SIFMA, Barclays Research

Primary dealers pulled back further from the ABS market in 2016, averaging just $5.4bn of traditional consumer ABS inventory, down 22% from a year ago (Figure 9). However, primary dealer trading volumes remained more stable y/y, falling just 5%, which has elevated balance sheet turnover (Figure 10), offsetting some of the reduction in inventory and supporting liquidity in the traditional ABS sectors.

While the reasons for these trends can be largely summarized as side effects of the increasing burden of regulatory changes, primary dealers have, in part, been able to offset some of the restrictions by increasing the efficiency of their balance sheet and turning over bonds more frequently compared to when balance sheet capacity wasn't as scarce. Figure 10 shows that as transaction volume decreased, primary dealer balance sheet turnover increased and this was possible due to a push by market makers to act more like agents and less like principals (*Behavior Modification*, 8 June 2016). Throughout 2016 the data has supported this thesis and as such we believe it is important for investors to be mindful of the potential consequences of this shift. Liquidity will remain sufficient for bonds from traditional ABS asset classes and established sponsors, which can be more easily bought and sold by primary dealers. However, for bonds from more esoteric asset classes or less

FIGURE 9

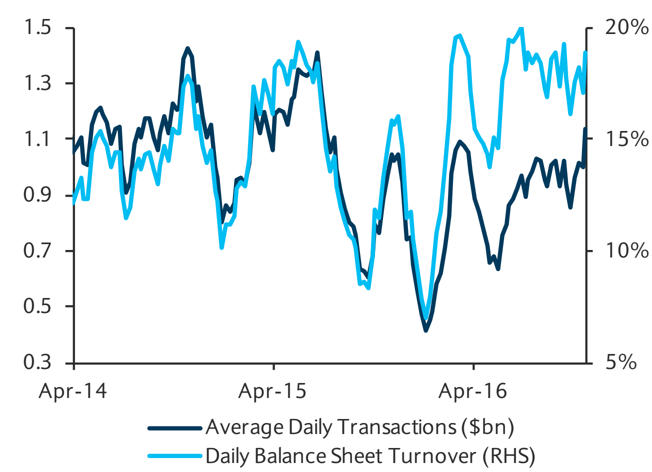
Dealer ABS Inventory ($bn)



Source: NY Fed, Barclays Research

FIGURE 10

Daily Transaction Volume and Balance Sheet Turnover



Source: NY Fed, Barclays Research

established sponsors, investors should demand a liquidity premium for the risk that the ability to add to or decrease a position might be more restrained during times of stress. In some sectors, the premium for off-the-run bonds is well worth the risk, especially in servicer advance, given the significant pick-up in spread compared to other AAA-rated debt and the super senior nature of the collateral.

A Closer Look at Specific ABS Sectors

Auto-related ABS

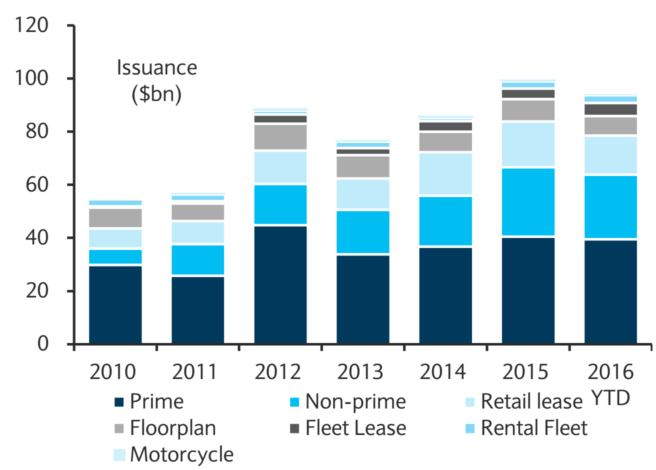
Issuance in the sector has decreased slightly y/y with most sub-sectors posting decreases with the exception of fleet lease and rental car ABS, which grew during 2016. Despite a decrease in issuance this year, 2016 will post the second largest amount of issuance volumes post-crisis, second only to last year.

The auto ABS sector has been buoyed by increasing originations in the subprime segment – more specifically from private equity-backed deep subprime originators, who rely more heavily on the ABS market for funding their originations compared to banks, for example. However, most auto loan originators, including subprime ones, have been signalling their intention to tighten credit next year, due to fears of a potential turn in the economy, a softening used car market, and plateauing sales. Although under Trump, fiscal spending could elongate the current auto sector expansion, we believe the originators will remain cautious and would be unlikely to deviate from their current plans without meaningful changes in the economy. For this reason, we are more cautious on the ability of the sector to best this year's figures.

In 2017, we forecast $90-95bn of issuance, below 2016 YTD's $96bn and 2015's $103bn, due to lower issuance volumes in the auto loan sector, as sponsors will seek to tighten credit in an effort to control deteriorating performance. Additional headwinds such as risk retention and Reg AB II coming into force within the next few weeks will at the very least delay issuance early next year, though we expect the market to adjust through more back-loaded primary market activity. We expect a similar dynamic in 2017 as 2016 when issuance was scarce during the first quarter, but a plethora of deals during the second and third quarter propelled this year's volumes close to last year's post-crisis record.

FIGURE 11

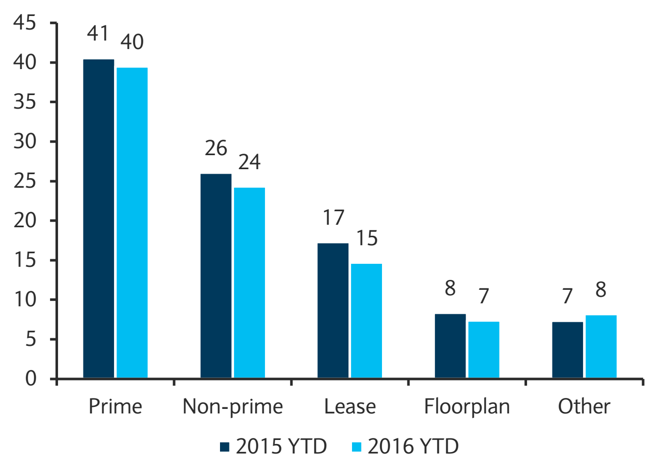
Auto-related ABS Issuance ($bn)



Note: 2016 issuance is through 25 November. Source: Bloomberg, Barclays Research

FIGURE 12

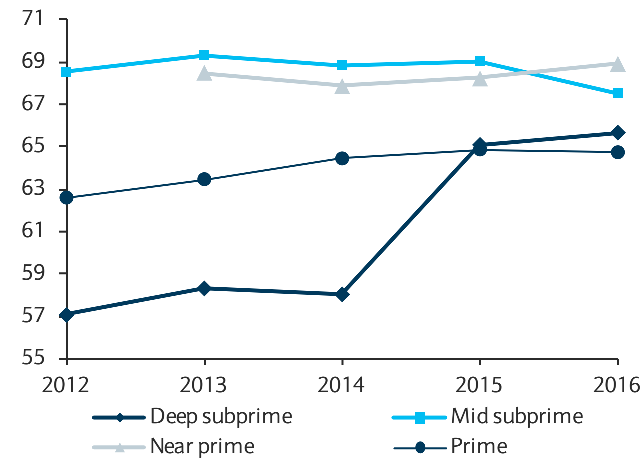
2015 and 2016 YTD Issuance ($bn)



Note: 2016 issuance is through 25 November. Source: Bloomberg, Barclays Research

FIGURE 13

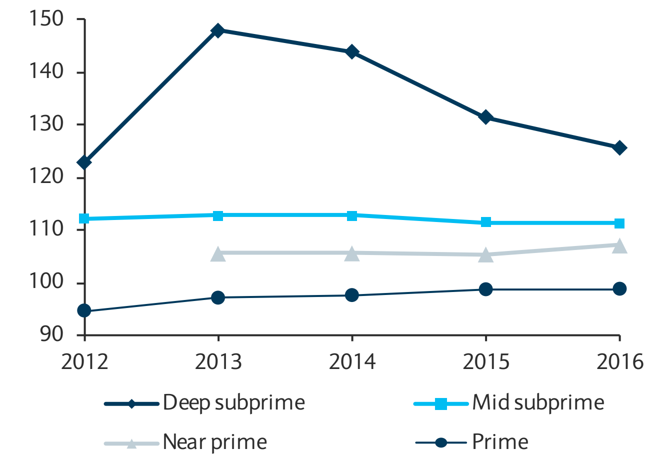
WA Original Terms Increased for Deep Subprime (months)



Source: Deal documentation, Barclays Research

FIGURE 14

While WA LTVs Decreased (%)



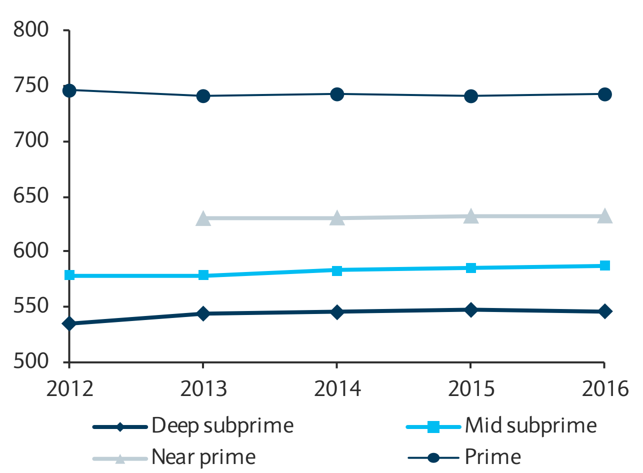
Source: Deal documentation, Barclays Research

Collateral Performance

During 2016, collateral characteristics at issuance exhibited signs of stability, though some metrics were mixed across the four segments – prime (>680 FICO), near prime (620-680 FICO), mid subprime (550-620 FICO), and deep subprime (<550 FICO). Deep subprime lending standards do not appear to be conclusively tighter, at least when looking at ABS collateral pools, as WA original terms continued to increase over 2015 origination and are now approaching 5.5 years on average. Near-prime also exhibited some increase, while mid-subprime and prime decreased slightly (Figure 13). LTVs were mostly stable for the higher credit quality segments, but continued to decline in deep subprime pools, which suggests that while terms are still being extended, sponsors are either asking for higher down payments or unwilling to fund loans that significantly exceed the value of the cars sold. At 126%, LTVs for deep-subprime are approaching 2012 levels, though remain well above subprime, which have remained stable at 111%. Near prime LTVs have increased slightly from 105% last year to 107% this year. Importantly, prime LTVs remained under 100%, but just barely, having increased close to a full percentage point from 2015 (Figure 14).

FIGURE 15

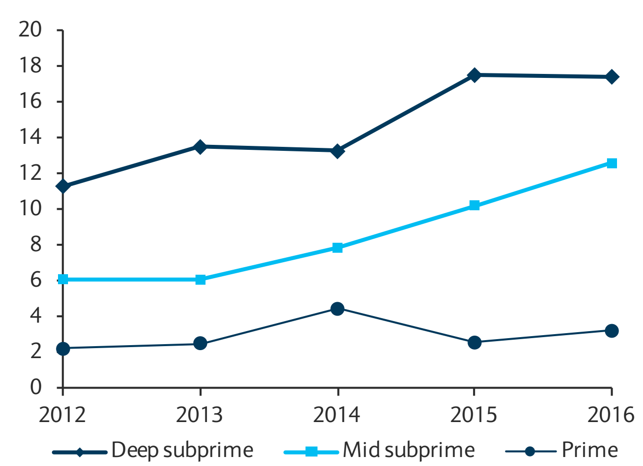
FICO scores remained stable…



Source: Deal documentation, Barclays Research

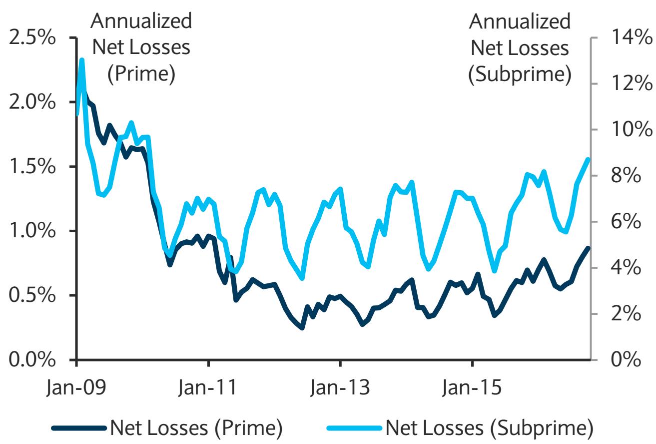
FIGURE 16

…As the portion of no FICOs in subprime increased (%)



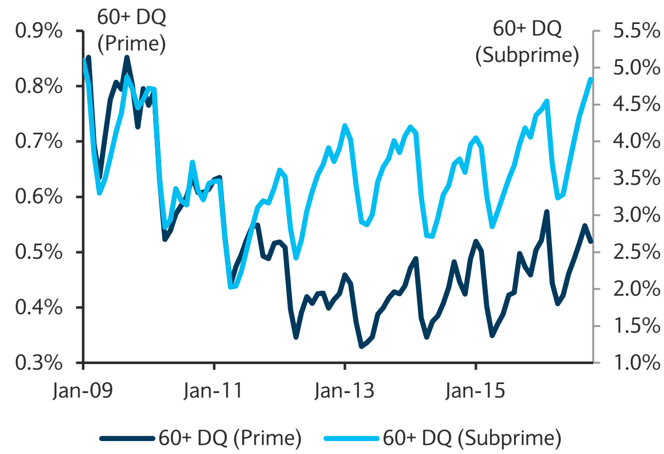
Note: Ally Financial (AFIN), the major near-prime issuer, does not report the percentage of borrowers with no FICO score. Source: Deal documentation, Barclays Research

FIGURE 17
Annualized Net Losses



Source: Deal documentation, Barclays Research

FIGURE 18
60+ Day Delinquencies



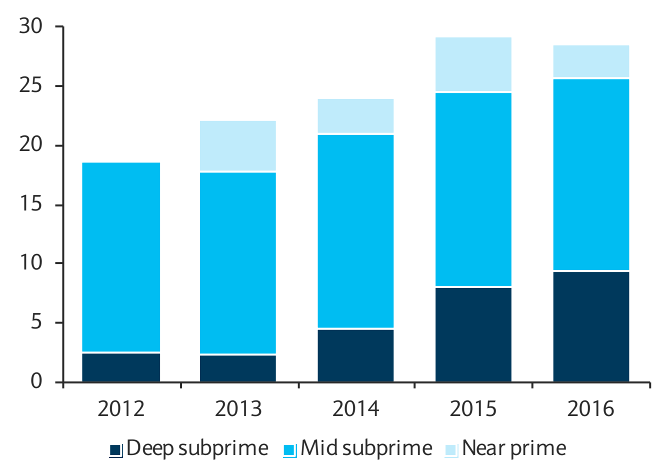
Source: Deal documentation, Barclays Research

Weighted average original FICO scores have held up compared to last year, in fact they've been stable since at least 2012 (Figure 15), with the current levels of 742, 633, 588, and 546 for prime, near prime, subprime, and deep subprime, respectively. As we've noted in the past (see *No FICO, No Problem?*, 15 April 2016), the no FICO score portion had been on the rise over the past few years, though it has since moderated for deep subprime and prime, with only continues to increase in the mid-subprime segment (Figure 16).

While y/y changes in collateral characteristics aren't suggesting that delinquencies and losses would necessarily be higher, this is in fact the case, especially in our subprime index. Net losses are now at the highest level since 2010 for subprime and 2011 for prime, reaching 8.7% and 0.87%, respectively (Figure 17). Delinquencies have risen to 4.8% for subprime and 0.52% for prime (Figure 18) and are expected to continue to rise through the next few months.

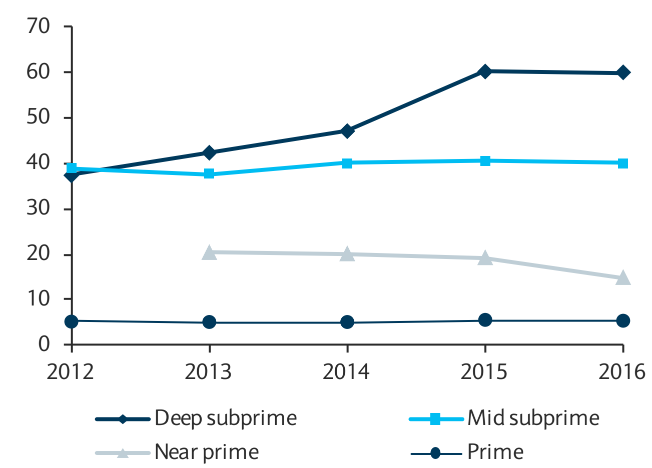
The deterioration in collateral performance has occurred as the total share of deep subprime collateral pools has increased as a percentage of our subprime index. In 2016 over 36% of subprime collateral came from deep subprime originators, up from 33% in 2015 and 21% in 2014 (Figure 19). Since 2016 vintage deals have yet to meaningfully impact the

FIGURE 19
Auto Loan Collateral by Segment ($bn)



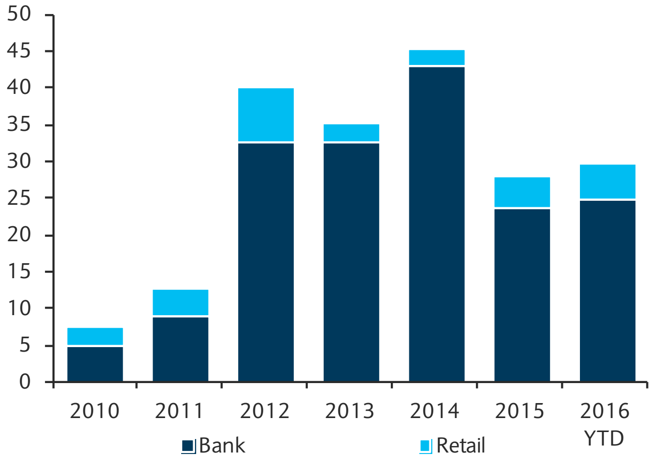
Source: Deal documentation, Barclays Research

FIGURE 20
AAA Credit Enhancement Levels (%)



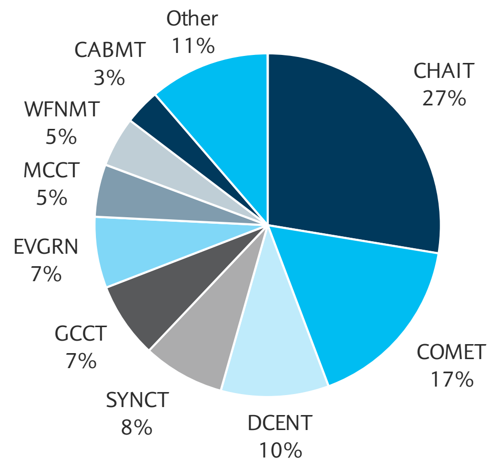
Source: Deal documentation, Barclays Research

FIGURE 21
Credit Card ABS Issuance ($bn)



Source: Issuance through 25 November. Source: Bloomberg, Barclays Research

FIGURE 22
Composition of Credit Card ABS Issuance in 2016



Source: Issuance through 25 November. Source: Bloomberg, Barclays Research

loss and delinquencies indices and vehicles coming off leases are projected to trim residual values, we expect index metrics to continue to deteriorate on a seasonal basis into 2017, though bonds should be safe from impairments at the AAA level, as credit enhancement levels have increased or remained stable (Figure 20).

Credit Card ABS

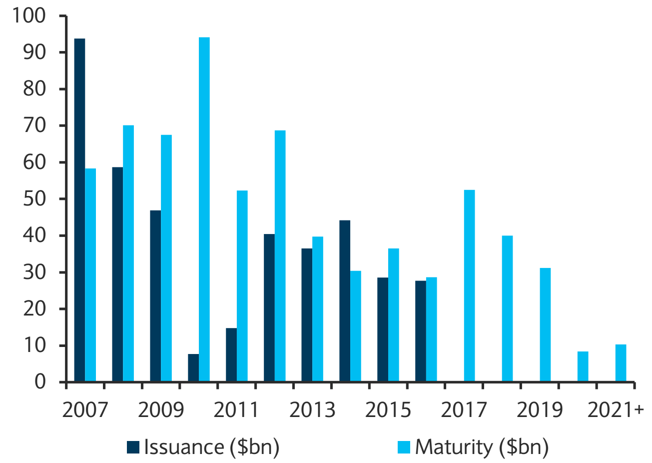
Credit card ABS issuance increases slightly y/y, with $30bn pricing through 25 November, surpassing the $28bn issued in 2015. The mix of bank and retail card issuance remained constant y/y, at approximately 85% and 15%, respectively (Figure 21). Chase (CHAIT), Capital One (COMET), Discover (DCENT), and Synchrony (SYNCT) remained the largest card issuers for the second straight year, making up 62% of 2016 new issue volume (Figure 22). Notably, two Canadian banks – TD Bank (EVGRN) and Bank of Nova Scotia (TCCT) – issued their first USD denominated card deals in 2016, while American Express (AMXCA) was absent from the ABS market, after significantly reducing issuance last year. Meanwhile, Citigroup (CCCIT) priced its first deal this week after being absent from the ABS market for the past two years, having issued more than $22bn in 2013-14.

With 2016 full-year issuance likely to be between $30-35bn, the primary market remains subdued compared with the $$40bn issued in 2014. However, with the large amount of card paper maturing in 2017 – we estimate close to $53bn, versus the $37bn and $29bn in 2015 and 2016, respectively (Figure 23) – and consumer credit card balances on the rise (Figure 24), we expect credit card ABS issuance to surge in 2017.

The increase in primary market volumes will likely be driven by refinancing from bank card issuers, such as CHAIT, COMET, DCENT, and even CCCIT, which together have more than $30bn of maturing card paper in 2017. We estimate the CCCIT shelf, which was by far the largest issuer in the sector in 2013 and 2014, had over $17bn mature in the last two years, with an additional $5bn set to mature in 2017. This leaves just over $13bn of outstanding CCCIT paper, down from $40bn in 2014, which could spur Citi to tap the ABS market more in 2017. Given the above, we forecast that 2017 card issuance of $45-50bn (up 50% y/y), enough for a post-crisis record.

FIGURE 23

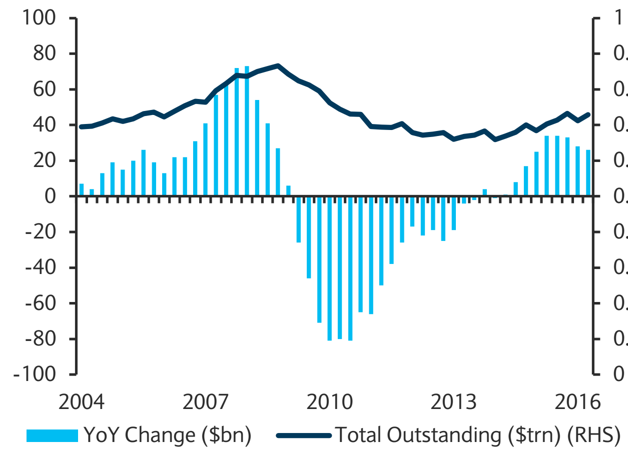
Historical Credit Card ABS Issuance and Maturities ($bn)



Source: Bloomberg, Barclays Research

FIGURE 24

Consumer Credit Card Balances



Source: Federal Reserve, Barclays Research

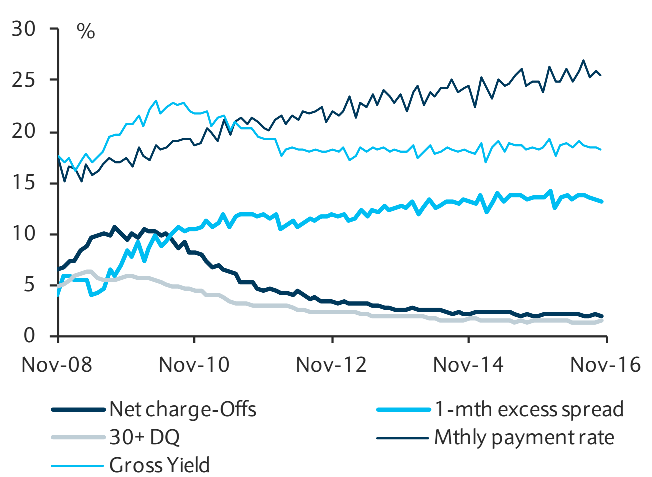
Credit Card Collateral Performance

Credit card fundamentals remain strong with both charge-offs and 30+ delinquencies in our bank and retail card indices near historical lows (Figure 25 and Figure 26). Charge-offs among bank cards averaged 2.1% in 2016, well below the 9.3% seen 2010. The story is similar in the retail card sector, where charge-offs have averaged 4.7% this year, down from 9.8% in 2010. With the drop in charge-offs and the increase in gross yields, excess spread remains elevated for both bank and retail cards. Excess spread is now 12-14% annualized in our bank card index and 16-20% in our retail card index.

We expect collateral performance to remain pristine in 2017. Credit card delinquencies remain the best predictor of charge-offs, at least in the short term (Figure 27 and Figure 28). Based on recent trends in delinquency metrics, combined with current delinquency roll rates, we believe bank and retail credit card charge-offs could increase in 2017; though, we do not expect a rise to pre-recession levels any time soon, Any weakening in credit performance should be mild and essentially just a step towards a return to more normalized charge-off and delinquency levels.

FIGURE 25

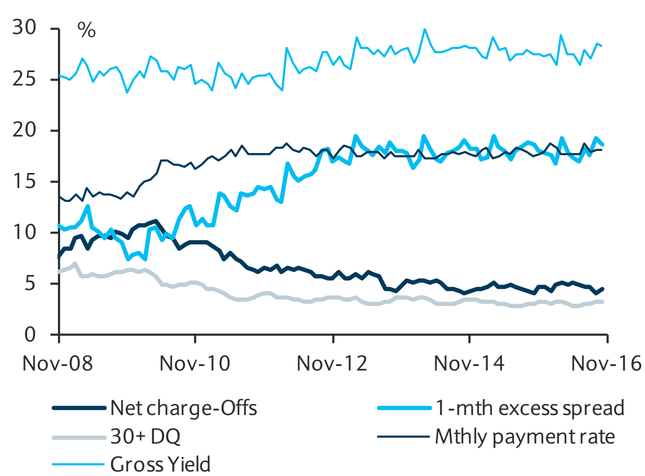
Barclays bank card index performance (%)



Note: Our bank card index shows weighted-average performance metrics across the AMXCA, COMET, CCCIT, BACCT, CHAIT, and DCENT master trusts.
Source: Deal remittance reports, Barclays Research

FIGURE 26

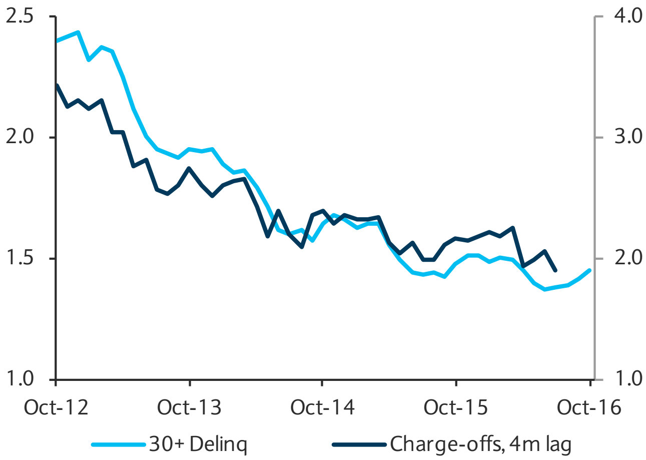
Barclays retail card index performance (%)



Note: Our retail card index shows weighted-average performance metrics across the CABMT, SYNCT/GEMNT, and WFNMT master trusts.
Source: Deal remittance reports, Barclays Research

FIGURE 27

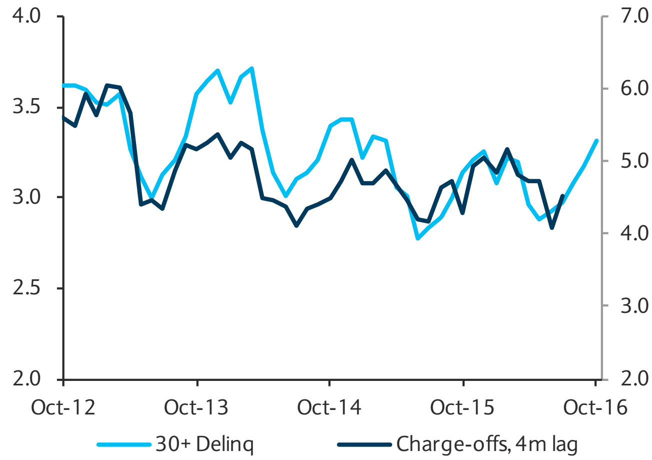
Bank Card Charge-offs versus Delinquencies (%)



Source: Remittance reports, Barclays Research

FIGURE 28

Retail Card Charge-offs versus Delinquencies (%)



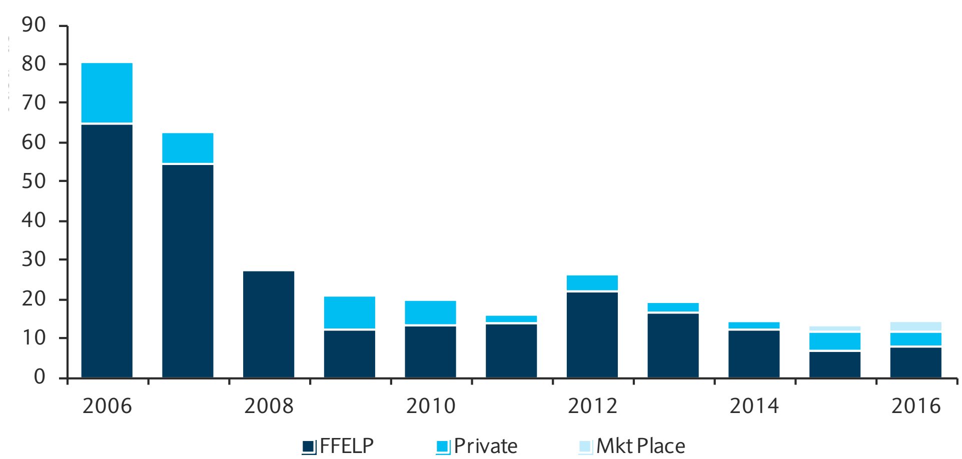
Source: Remittance reports, Barclays Research

Student Loan ABS

Student loan ABS (SLABS) new issuance volumes remain depressed compared to pre-crisis levels, as $14.3bn of paper has priced so far this year, up 9% y/y but just a fraction of the $81bn of peak issuance in 2006 (Figure 29). The dramatic decline in primary market activity has been due to the demise of private entity participation in FFELP lending in mid-2010 and a general pull-back in the offering of education finance outside of the US government's Direct Loan Program (DLP), given increased regulatory scrutiny and reduced margins. Despite no new FFELP originations since 2010, FFELP loan securitizations accounted for the majority of 2016 issuance (Figure 29). Meanwhile, the refi student loan market continues to grow, with new issue volumes increasing 60% y/y, now accounting for 20% of all new issue SLABS (*A Basic Education in Refi SLABS*, 14 October 2016).

FIGURE 29

Annual Student Loan ABS Issuance Volume ($bn)

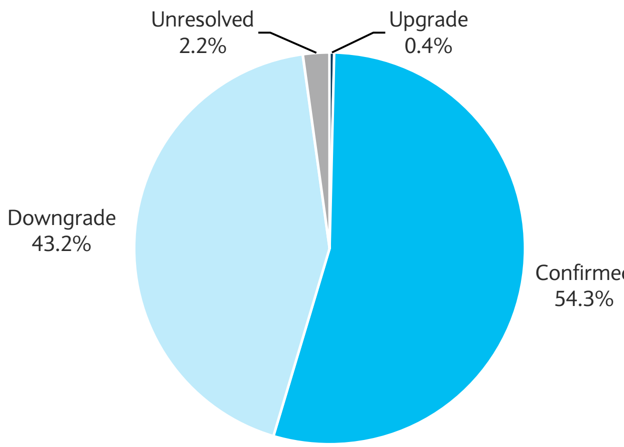


Note: Issuance through 25 November. Source: Bloomberg, Barclays Research

We forecast a slight increase in issuance volumes next year because of our expectation of increased in FFELP issuance, due to pent-up supply from optional repurchases and clean-up calls in 2015-16 and the conclusion of Moody's and Fitch's rating review, as well as further growth in refi SLABS space. However, beyond 2017 uncertainty exists. The Trump presidency could mean significant changes for the Department of the Treasury's Direct

FIGURE 30

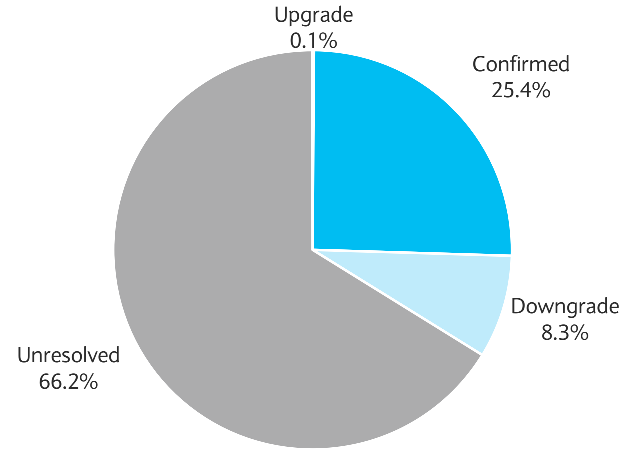
Moody's Possible Downgrade Watch List



Source: Moody's, Barclays Research

FIGURE 31

Fitch's Negative Watch List



Source: Fitch, Barclays Research

Loan Program, since it stands in contradiction to Trump's view that the private sector should play a larger role in financing education. Without government guarantees, loans would be more stringently underwritten according to credit, which would raise the cost to borrowers. Some of the increase in costs could be absorbed by a government program, though we think such a program would be auxiliary to the main intention of enhancing the role of private capital in the industry. Therefore, we are optimistic about the prospects of some of the private student lenders, both traditional and refi/marketplace lenders to grow and in turn rely on the ABS market for that growth in future years.

FFELP Update

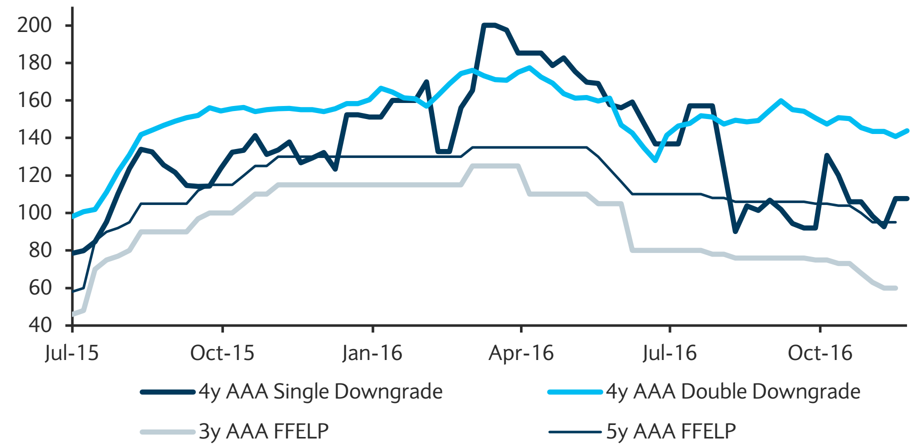
Moody's and Fitch have continued to resolve their watch lists and will both likely finish either this year or in Q1 17. Moody's has made significant progress on their June watch list and now has only about 2% of the total universe placed on some sort of a watch (possible upgrade, possible downgrade, or watch uncertain). Of the bonds placed on watch for a possible downgrade, the majority have been confirmed, while 43% have actually been downgraded and of those over a third have been downgraded by only one notch. Even if 100% of the bonds still on negative watch lists are eventually downgraded, the rate would remain below 50% - that is, it is more likely for a rating to be affirmed than for it to be downgraded after a bond is placed on a possible downgrade watch.

Fitch has been slower in resolving their watch list, having finalized their methodology in July, which could lead to ratings actions well into January. With about two thirds of their original list still to go, it is too early to draw meaningful conclusions about the eventual extent of downgrades. So far, about a quarter of their list has been affirmed and less than 10% has actually been downgraded, though we caution against extrapolating from this low figure. It is possible that downgrades are more complicated to actualize, which could substantially raise the portion of bonds eventually downgraded. Over $45bn of bonds outstanding remain on Fitch's watch list.

Spreads in the FFELP ABS sector have been tightening in line with other risk assets this year, with the exception of bonds placed on both Moody's and Fitch's downgrade lists. These bonds have decoupled from their peers who are found on only one downgrade list and have been largely range-bound after about 30bp of widening over July and August. We believe conservative investors, who need at least two AAA ratings, shied away from this segment of the market given the risk of ending up with one (S&P) or no AAA ratings. However, this segment will continue shrinking as Moody's nears finalizing their ratings actions. 4y WAL

Single Downgrade bonds have converged with broader 5y WAL FFELP spreads. Spreads are now at about late July 2015 levels and we expect the tightening to continue in the sector as the watch lists are resolved.

FIGURE 32
FFELP Spreads (bp)



Source: FINRA, Barclays Research

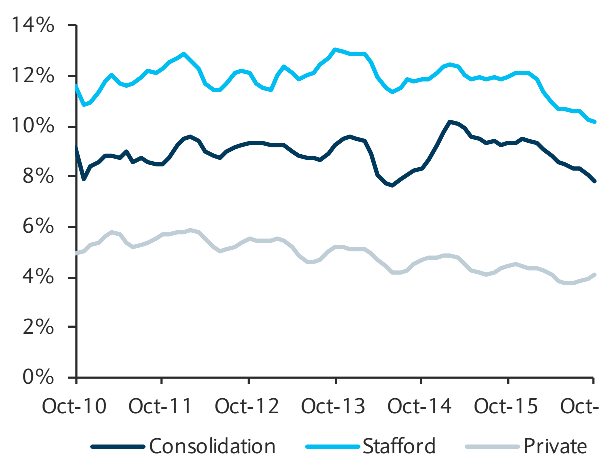
Collateral performance

SLABS collateral performance improved for both FFELP (Stafford and Consolidation loans) and private student loan in 2016. 30+ day delinquencies and default rates declined y/y across each sector (Figure 33 and Figure 34).

Private student loans originated today are of significantly higher quality than those from earlier years, with the large majority benefiting from a co-borrower (typically, the parents of the student) and average credit scores greater than 740. As a result, cumulative losses on 2014-15 vintage private SLABS have been lower than on deals issued in 2009 and 2010, which often held high concentrations of loans disbursed before 2009 (Figure 35).

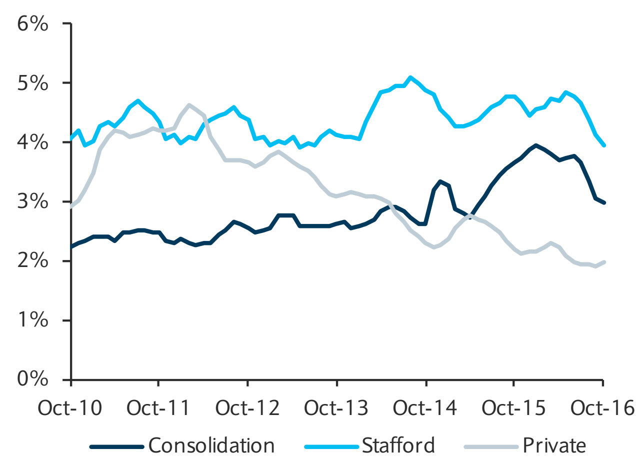
In addition, the rating agencies continue to mandate very high levels of initial credit support on newly issued deals (Figure 36). For example, average class B initial enhancement levels

FIGURE 33
Historical 30+ Delinquency Rates on Student Loan ABS



Note: Only student loan deals issued in 2002 or later are included.
Source: Remittance reports, Barclays Research

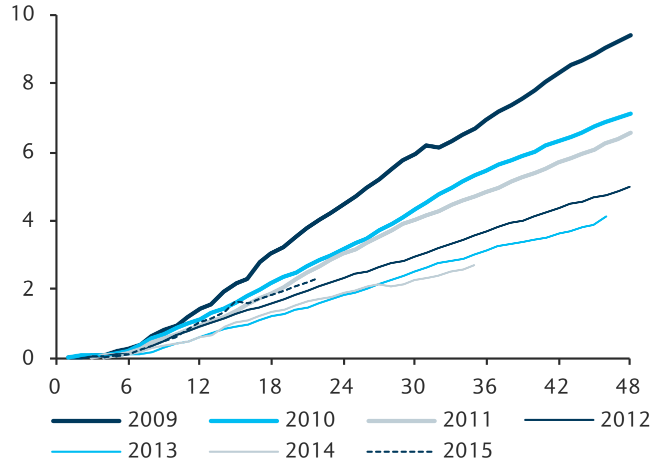
FIGURE 34
Historical Default Rates on Student Loan ABS (3-mth CDR)



Note: Only student loan deals issued in 2002 or later are included.
Source: Remittance reports, Barclays Research

FIGURE 35

Cumulative Losses on Recent-Vintage Private SLABS (%)



Note: Performance from SMB, NAVSL, and SLMA deals. We do not show cumulative losses on pre-2009 deals because Sallie Mae frequently repurchased seriously delinquent loans from these pools prior to 2007, preventing losses in its private student loan trusts for several years. Source: Deal remittance reports, Barclays Research

FIGURE 36

Initial Credit Enhancement Levels Remain Elevated

Initial C/E on private SLABS (%)			
Year	Class A (AAA)	Class B (AA/A)	Class C (A)
2005	9.5	5.9	0.8
2006	9.5	5.8	0.8
2007	9.5	5.9	0.8
2008	No private SLABS issuance by SLMA		
2009	38.2		
2010	39.9		
2011	21.7		
2012	24.9		
2013	25.0	16.2	
2014	25.1	16.5	
2015	27.8	20.4	6.6
2016	26.8	19.3	

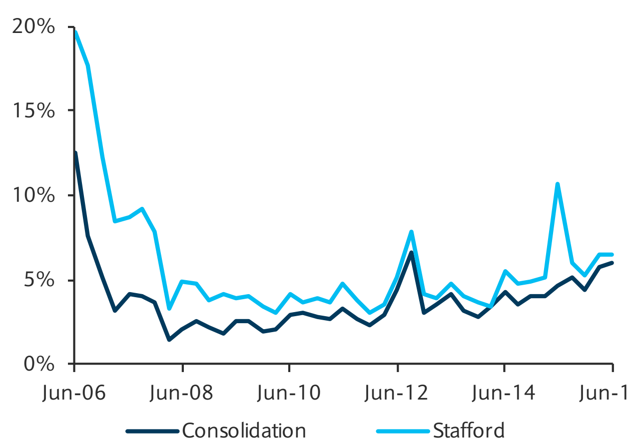
Note: Only deals issued by SLMA, NAVSL, and SMB are included in the table. Source: INTEX, deal documents, Barclays Research

climbed to 19.3% on 2016 NAVSL/SMB issued private student loan deals, significantly greater than 5.9% initial credit support levels built into pre-2008 transactions.

Loan defaults are far less of a concern in FFELP ABS, since FFELP student loans are guaranteed by the US government for at least 97% of principal and accrued interest. Prepayment rates are of much greater importance, as the rating agency reviews have made clear. Voluntary prepayments declined to historic lows during the financial crisis and remained low as the economy recovered (Figure 37). Since then, voluntary prepayments and consolidation refinancing activity have increased, but at a slow pace. However, the spike in 2012 was due to the availability of the Special Direction Consolidation Loan program, which drove significant refinancing activity, while the spike in 2015 was due to Navient's exercising optional loan repurchases in trusts most at risk for downgrade by Moody's and Fitch (see *Navient to call $636mn in FFELP ABS on downgrade watch*, 9 September 2015).

FIGURE 37

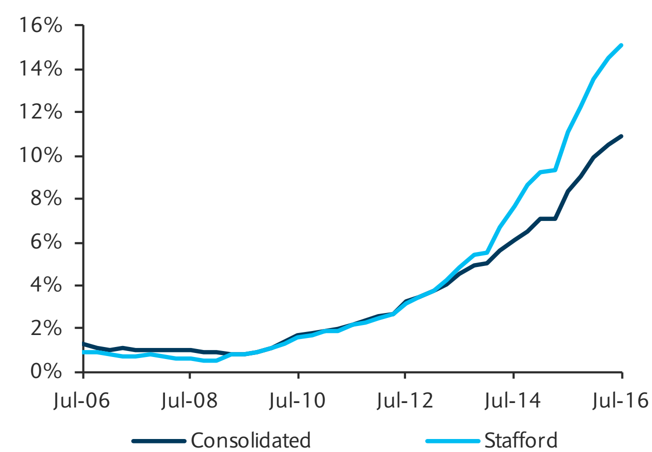
Quarterly Prepayment Rates



Note: Performance from NAVSL and SLMA deals. Source: Deal documents, Barclays Research

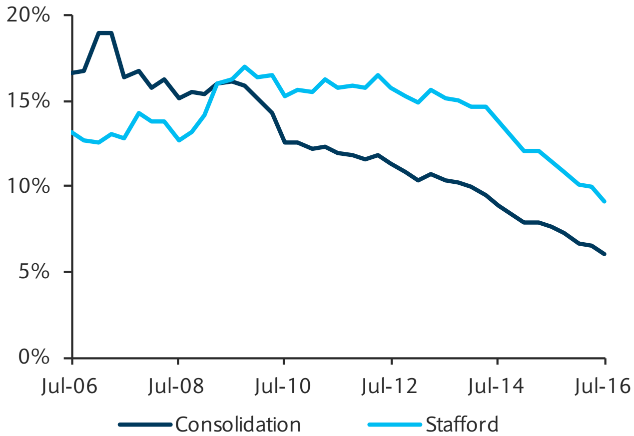
FIGURE 38

Borrowers in IBR



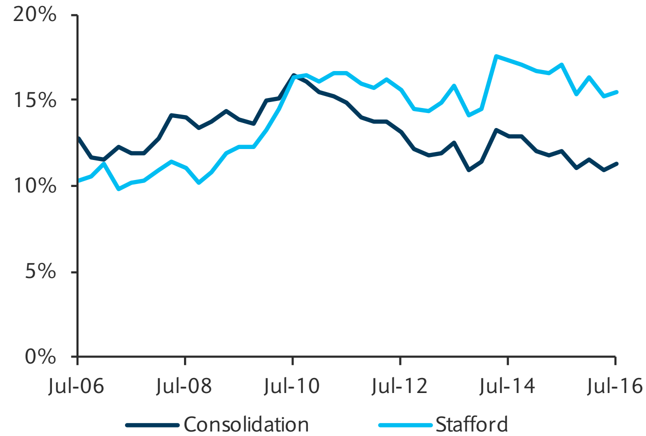
Note: Performance from NAVSL and SLMA deals. Source: Deal documents, Barclays Research

FIGURE 39
Deferment Rates



Note: Performance from NAVSL and SLMA deals. Source: Deal documents, Barclays Research

FIGURE 40
Forbearance Rates



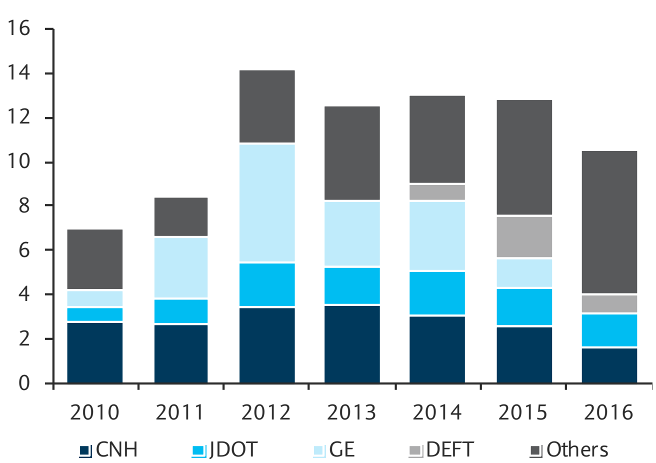
Note: Performance from NAVSL and SLMA deals. Source: Deal documents, Barclays Research

Deferment and forbearance rates rose during the financial crisis, and although deferment rates for both loan types and forbearance rates for consolidation loans have since declined as the economy recovered, forbearance rates on Stafford loans have increased in recent years (Figure 39 and Figure 40). However, much of this rise in Stafford loan forbearance rates can be attributed to the use of short-term forbearances for borrowers applying to enter the income-based repayment program (IBR). When this type is excluded from the calculation, Stafford loan forbearance rates have actually declined.

Equipment ABS

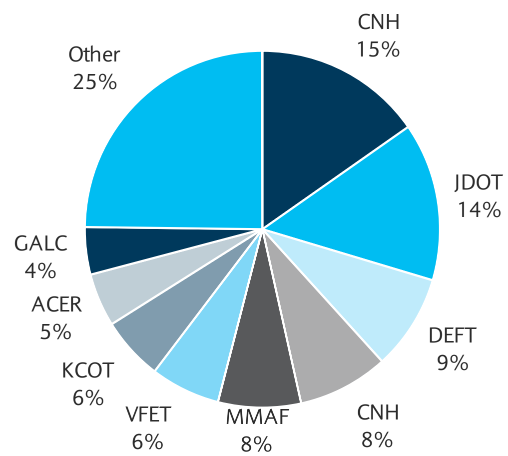
Securitizations backed by equipment loans and leases, including have historically accounted for $12-14bn in annual non-mortgage ABS volume. However, just $10.5bn of equipment ABS has priced in 2016, down 18% y/y (Figure 41). The lower issuance seen in 2016 was partly driven by the retirement of GE's ABS program due to its sale of GE Capital to Wells Fargo (*New issue supply continues to surge in October*, 16 October 2015) and fewer deals from Dell (DEFT). However, the lack of volume from these issuers was partially offset by four new entrants in 2016 – Stonebriar (SCFET), Nation Equipment (NEQ), Landmark (LMRK), and Ascentium Capital (SERT) – which combined for $529mn of issuance.

FIGURE 41
Historical Equipment ABS Issuance ($bn)



Note: Issuance through 25 November. Source: Bloomberg, Barclays Research

FIGURE 42
2016 year-to-date Equipment ABS Issuance by Shelf



Note: Issuance through 25 November. Source: Bloomberg, Barclays Research

Collateral performance

Equipment ABS collateral performance weakened mildly between 2012 and 2015, as annualized net losses and 60+ day delinquencies rose 6bp and 19bp, respectively. The gradual deterioration in fundamentals over the preceding four years was, in our view, a natural step in a return to more normalized levels of charge-offs and delinquencies after underwriting standards tightened significantly in the wake of the financial crises. However, losses rose at a markedly faster pace in 2016, with losses and delinquencies increasing 32bp and 20bp, over the past 10 months (Figure 43).

The deteriorating collateral fundamentals in the space have primarily been driven by ABS pools with large concentrations of agricultural and construction equipment – namely, the JDOT (Deere), CNH (CNHI), and VFET (Volvo) shelves – due to weakness in the commodities sector (see *Tractors, Trailers, and Trucks: A Review of ABS Trusts*, 28 October 2016). These three ABS shelves account for just over 50% of outstanding equipment ABS collateral and with trailing six-month annualized net losses having increased one and a half times in the JDOT shelf and having tripled in the CNH and VFET shelves in 2016), albeit from historically low levels, losses in the equipment ABS space have been pushed above pre-crisis levels (Figure 44).

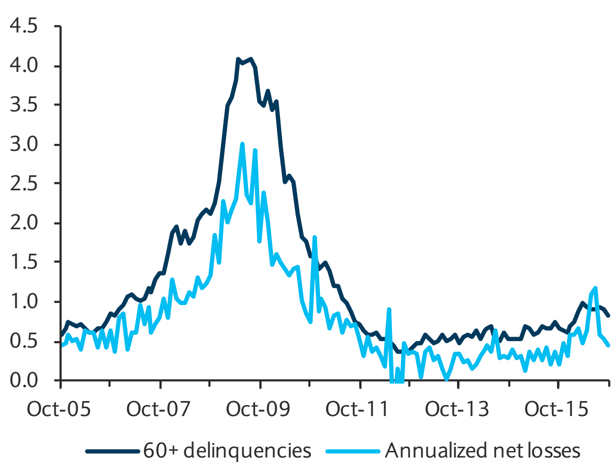
The commodities sector is not expected to rebound meaningfully in the very near term, which will likely place further pressure on lessor counterparty credit quality and equipment recovery values in the agriculture and construction space. But even as risks in the space have increased, these are well mitigated by the relatively short, self-liquidating nature of the collateral, more than ample credit protection, and strong parent companies, in our view. Additionally, if large infrastructure spending materializes in the near- to medium-term, equipment lease/loan ABS collateral performance would likely benefit.

Esoteric ABS

The esoteric ABS sector is poised to finish 2016 just above $40bn, which will be a slight decrease to last year's primary market levels; however, an increase to 2014's totals (Figure 45). The bulk of the issuance is in the 2-5y WAL buckets, which account for close to 75% of issuance, excluding SBA deals (shelves SBAP and SBIC) (Figure 46). While transportation and other corporate securitizations saw issuance fall y/y, the consumer esoteric sector saw continued growth, fuelled primarily by personal loan ABS, SFR, timeshare, and device payment plan (DPP) ABS. Personal loans issuance was dominated by OneMain, while

FIGURE 43

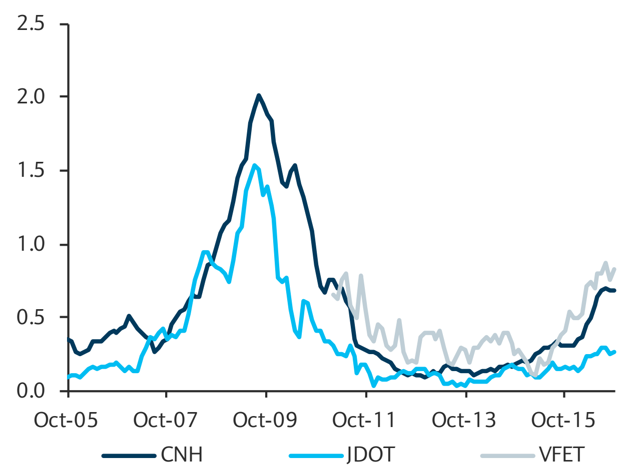
Barclays Equipment ABS Index Losses and Delinquencies (%)



Note: Only deals with 5+ months of seasoning are included Source: Remittance reports, Barclays Research

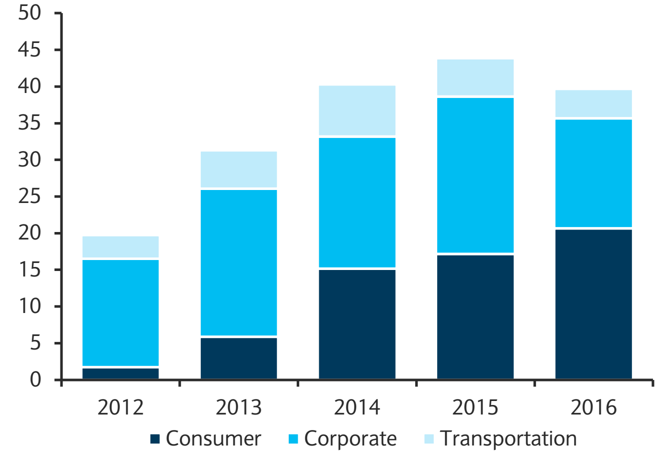
FIGURE 44

Annualized Net Losses by ABS Shelf (%)



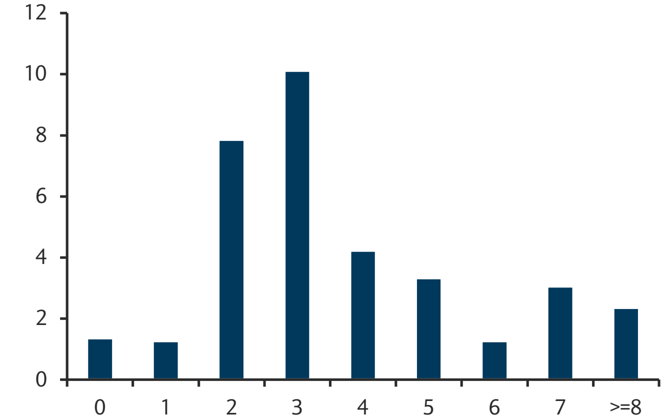
Note: Only deals with 5+ months of seasoning are included Source: Remittance reports, Barclays Research

FIGURE 45
Esoteric ABS Issuance



Note: Issuance through 25 November. Source: Bloomberg, Barclays Research

FIGURE 46
2016 Esoteric ABS by WAL



Note: Issuance through 25 November. Source: Bloomberg, Barclays Research

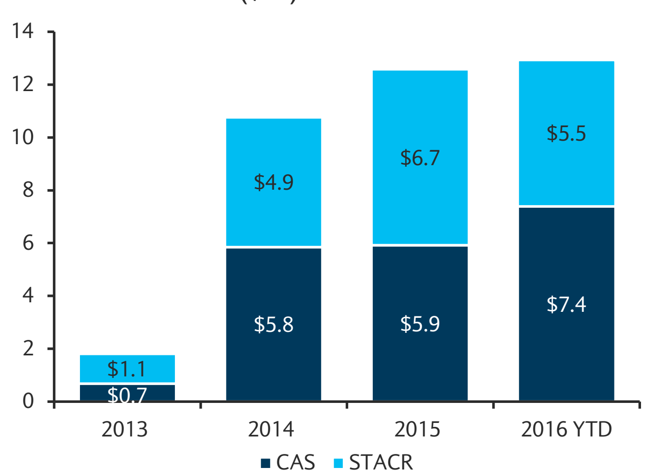
Verizon accounted for all of the DPP issuance. We expect esoteric ABS issuance to swell to $40-45bn next year, as the DPP asset class matures and new sponsors enter the market. We expect this sector alone to account for $15-20bn, which should fuel esoteric ABS growth for years to come after close to $2.6bn was issued this year.

GSE CRT

Issuance volumes this year have been slightly above last year's levels and look set to end the year about 3% over 2015's levels. Fannie's last deal totaled $700mn and transferred risk through April 2016 production, which might suggest issuance next year will be limited; however, we do not believe this to be the case. The low rate environment and improving housing market has propelled mortgage origination 10-20% higher than last year across agencies and LTV buckets.

While Fannie was able to grow issuance levels in 2016, Freddie was not, opting instead for smaller deal sizes, which ultimately limited new issuance to $5.5bn, a 16.8% decrease to last year's $6.7bn. Fannie was able to push its issuance above to $7.4bn, a hefty 25% y/y increase. All in all, just shy of $13bn GSE CRT bonds were issued this year (Figure 47).

FIGURE 47
STACR/CAS Issuance ($bn)



Source: Bloomberg, Barclays Research

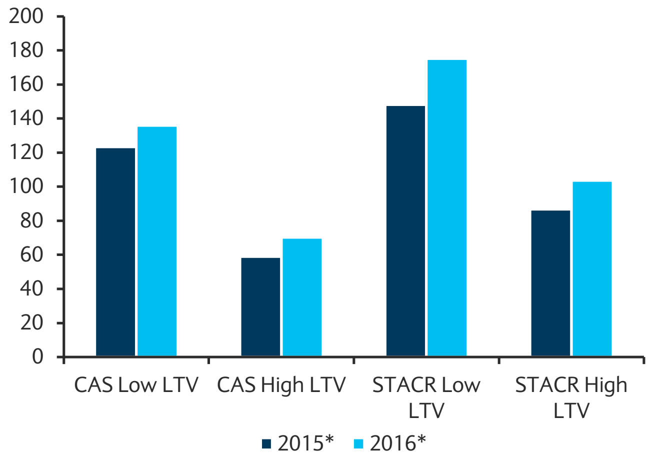
FIGURE 48
STACR/CAS Issuance Calendars

Freddie				Fannie			
2016		2017		2016		2017	
Jan	DNA1	Feb	DNA1	Feb	C01	Jan	C01
Feb/Mar	HQA1	Feb/Apr	HQA1	Mar	C02	Feb/Mar	C02
May	DNA2	Apr	DNA2	Apr	C03	May*	C03/C04
May/Jun	HQA2	Jun	HQA2	Jul	C04	Jul	C05
Jun	DNA3	Jun/Sep	DNA3	Aug	C05	Jul/Aug	C06
Aug/Sep	HQA3	Sep/Oct	DNA4	Oct/Nov	C06	Oct/Nov*	C07/C08
Sep	DNA4	Oct/Dec	HQA3	Nov	C07		
Sep/Oct	HQA4			Dec			

Note: Red denotes deals that have not yet been issued. We understand that Fannie had initially indicated 8 deals would be issued this year; however, only one more deal could potentially be issued. * denotes that Fannie could issued 2 deals during the period. Source: Bloomberg, Barclays Research

FIGURE 49

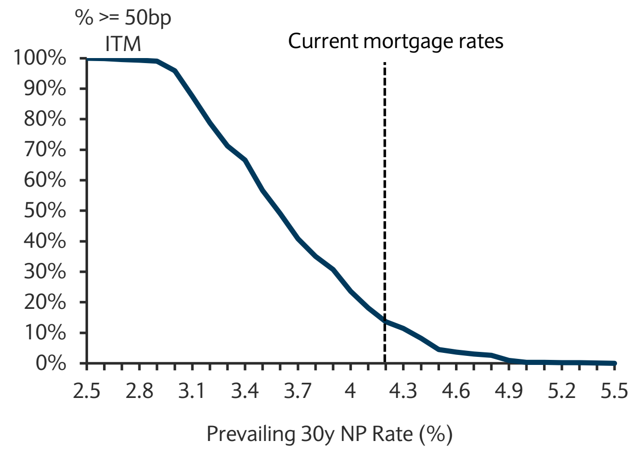
Eligible Production as of November Factor Date



Note: Volumes represent Mar-Oct and Apr-Oct eligible production for CAS low and high LTV, respectively, and Apr-Oct for STACR. Source: 1010data, Barclays Research

FIGURE 50

Fewer borrowers now have an incentive to refi



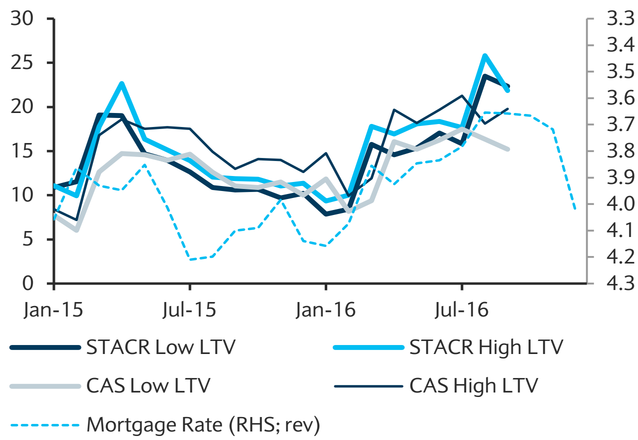
Source: 1010data, Barclays Research

For next year, assuming similar issuance patterns, we expect about $13bn in issuance with Fannie continuing to be the larger issuer, in our view. We expect primary market volumes to be fairly stable y/y because early 2017 origination is expected to be low and the risk for early year 2016 originations have already been transferred. The new issue calendar released by both agencies earlier this month show Freddie envisioning only seven deals next year, as opposed to eight, whereas Fannie projects 6-8 deals, compared to seven in 2016. We acknowledge that the competing re-insurance programs, as well as the front end risk transfer initiative may cannibalize some CRT issuance at the margin, however, much of this should be offset by the greater stock of mortgages originated in 2016.

Figure 49 shows that mortgage origination which has not yet been linked to a CRT deal is higher than for the same period last year. Although our agency MBS strategists believe mortgage origination will decrease next year due to the back up in rates, which has diminished the incentive to refinance (Figure 50), November and December 2016 origination is unlikely to be affected due to the lag between when a mortgage application is submitted and when the loan is closed. Assuming a reduction in Jan-Feb 2017 production for Fannie and Jan-Mar 2017 for Freddie, still suggests CRT issuance from both agencies will top $13bn.

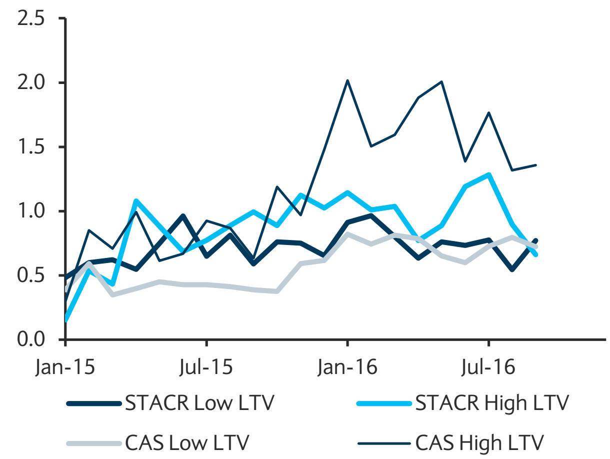
Prepay speeds have posted new highs in the sector, driven mainly by a fall in the 30y fixed rate mortgage rate, however, given the sharp move higher in rates following the election, we expect them to slow down to around 10CPR from 15-20CPR (Figure 51). Net loss rates remained fairly stable with the exception of CAS high LTV pools, for which rates have touched 2bp compared to 1bp or less for the other cohorts (Figure 52). The higher LTV ceiling for CAS high LTV deals is certainly a factor and we expect losses in such pools to be elevated relative to the rest. Nonetheless, the level of losses remain very low across the CRT space and this is a reflection of tighter underwriting guidelines following the financial crisis.

FIGURE 51
STACR/CAS CPRs and Mortgage Rates (%)



Source: MBA, Deal documentation, Barclays Research

FIGURE 52
Net Loss Rate (bp)

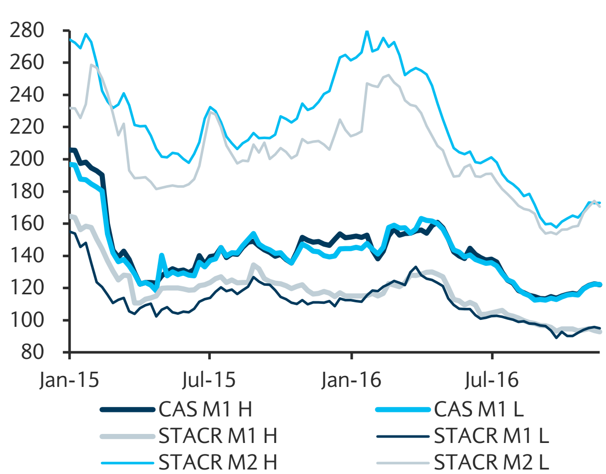


Source: Deal documentation, Barclays Research

2016 has been marked by a very favorable spread environment for STACR/CAS deals, with healthy HPI supporting credit deleveraging and allowing spreads to post all time lows. STACR front cash flow (FCF) bonds have dipped below 100bp and STACR M2 are now trading at levels where FCF bonds used to trade in early 2015 (Figure 53). Last cash flow (LCF) bonds have converged and are now trading close to their LTM tights (Figure 54). For next year, the reduction in speeds will extend bonds out, but since most of the CRT universe is trading at a premium, it will also increase yields to compensate. A few newer vintage STACR MCF M2 tranches trade at a discount and are most susceptible to extension risk without the compensating higher yields. Unlike the M3s that trade below par and benefit from the 10y call option that will cap any extension and decrease in yield, there is no such solace for the M2s that trade below par. Therefore, we suggest investors consider other tranches.

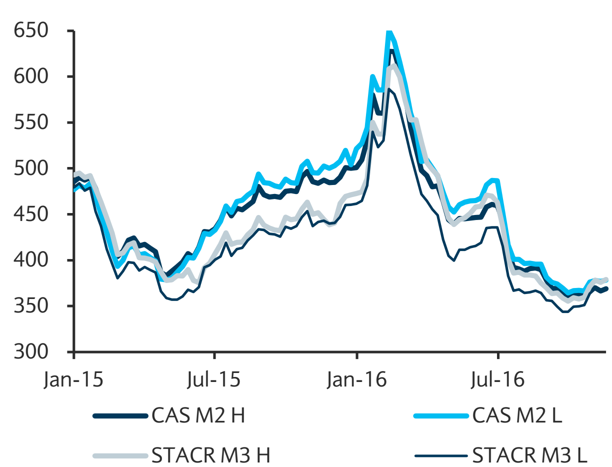
For investors who place a high premium on not getting their bonds extended, even with the associated higher yields, we like 2015 vintage CAS deals and late 2014 and early 2015 vintage STACR deals, because those are linked to mortgages with higher WACs than current levels. As such speeds will remain highest for these deals and thus provide the best extension protection for investors, all things equal.

FIGURE 53
FCF Spreads



Source: Barclays Research

FIGURE 54
LCF Spreads



Source: Barclays Research

European Strategy

EUROPEAN INVESTMENT GRADE STRATEGY

Preparing for yield take-off

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- **We believe that the lows in €-IG corporate yields are behind us. Either EGB yields will grind higher, supported by a stronger outlook for growth and inflation globally, or the market's current faith in the reflation trade is misplaced and €-IG spreads have significant downside from current valuations. The lack of clarity over US economic policy makes it unusually difficult to say which is the more likely outcome.**
- **Under reflation, growth and inflation accelerate in response to fiscal stimulus while US corporates additionally benefit from lower taxes and easing regulatory burdens. The benefit to European credit would be second order, however, and the upside for spreads would be stymied by corporate leveraging activity and a likely deceleration in the pace of CSPP activity. Thus, even the most positive scenario for 2017 would struggle to generate better returns than in 2016.**
- **If the reflation trade sours, however, then recent tightening of financial conditions may choke the European recovery, triggering downside risks in spreads. Most likely, next year will fall somewhere in the middle: with US fiscal stimulus arriving late and diluted, while rising yields drag on activity more immediately. Our baseline scenario is a leak wider in spreads as heavy supply and a slower pace of central bank buying overwhelm the organic demand for credit, given still historically low yields.**

FIGURE 1
Key investment themes for €-IG corporate credit in 2017

Strategic Theme	Investment Implications
€-IG corporate yields have seen the low for this cycle...	Expected €-IG returns look unattractive versus a mix of equities and EGBs.
...if higher yields reflect stronger growth and inflation	In the positive scenario, earnings growth will benefit corporate risk assets:
	...but policy normalization argues for higher EGB yields and reduced CSPP, and **we expect in-scope BBBs to underperform in this scenario**
	...low yields have also flattened the front of credit curve, and hence higher rates should push curves steeper. We expect **3y credit to perform best on the curve**
	...and the Fed should normalize policy faster than current market pricing, pushing global yields higher and resulting **in negative total returns**
	...**Insurers (OW)** stand to benefit from rising interest rates and regulatory burdens that are likely to ease, on the margin.
	...**US corporates are expected to outperform European corporates**, as they are better placed to benefit from the US administration's "America First" policies
...if higher yields do not presage stronger earnings growth	In the negative outlook, tighter financial conditions lean on growth and inflation, pushing EGB yields lower in H2 as economic momentum falters:
	...higher corporate yields would still emerge, but driven by widening spreads
Political risks are centred on Europe	2017 is strewn with elections, and will also have to deal with the fallout from this year's referendums in the UK and Italy.
...return of convertibility premium is a tail-risk	Banks should underperform in politically-driven bouts of systemic risk-off, but this has not been the case ahead of the Italian referendum:
	...for this reason **we remain tactically UW the Banking sector through year-end**
	...but if their reaction function has changed, we would need to revisit this rating
CSPP can't cap tail- or downgrade-risks in credit	Asset purchases did not prevent sell-offs in 2012, 2013, or 2016
	...while the ECB would likely increase CSPP in a downside scenario, we still believe spreads have material capacity to widen in periods of volatility

Source: Barclays Research

Returns are likely to be lower in 2017

Year-to-date excess returns have been strong, with the Barclays Bloomberg Euro Aggregate Corporate index generating +203bp of excess returns: between our baseline (+160) and our upside (+290bp) forecasts made last year. We view this performance as justified given that CSPP was not something we expected, but focus on that programme has already shifted to a potential tapering and downside risks have also played out over the year as a whole.

Year-to-date total returns of +420bp are almost impossible to match too, given a starting index yield of 93bp. More realistically, total returns are likely to be negative next year, as the ECB lowers the pace of asset purchases and the US Treasuries pull global yields higher. This will be a headwind to retail demand for credit, which has been supportive of €-IG. With issuance expected to be strong, weaker demand should result in wider spreads in 2017.

FIGURE 2

Barclays 2017 €-IG excess returns forecast

	Baseline	Upside	Downside		Baseline	Upside	Downside
EUR Corp	0.9%	2.4%	-2.4%				
EUR Industrials	0.7%	1.8%	-1.7%	Indu - 1-3y	0.7%	1.2%	0.0%
				Indu - 3-5y	0.4%	1.2%	-1.9%
Indu - AA	0.4%	1.7%	0.0%	Indu - 5-7yr	0.6%	2.0%	-2.2%
Indu - A	0.6%	1.7%	-0.6%	Indu - 7-10yr	0.9%	2.5%	-1.8%
Indu - BBB	0.7%	2.0%	-3.2%	Indu - 10-20yr	0.6%	2.3%	-2.2%

Note: Forecasts refer to the Bloomberg Barclays Euro Aggregate Corporate Index, and the indicated sub-indices.
Source: Barclays Research

FIGURE 3

Barclays 2017 €-IG returns scenarios, and spreads forecasts (OAS, bp)

	Observed (25 Nov)	Baseline	Upside	Downside
GDP (yoy)	1.6	1.5	2.0	0.5
CPI (yoy)	0.5	1.3	1.5	0.5
V2X	21.4	22.0	19.0	25.0
Lending Standards (3Q Lag)	-5.6	3.0	0.0	10.0
Inflation Expectations	0.8	1.3	1.5	0.5

OAS	Observed (25 Nov)	Baseline	Upside	Downside
Euro IG	124	130	100	200
Euro IG - Indu	112	120	100	165
Indu - AA	74	80	60	85
Indu - A	93	100	80	120
Indu - BBB	132	145	120	215
Indu, 1-3	91	100	75	140
Indu, 3-5	103	120	100	180
Indu, 5-7	118	130	105	180
Indu, 7-10	125	130	110	165
Indu, 10+	127	130	115	155

Note: Forecasts refer to the Bloomberg Barclays Euro Aggregate Corporate Index, and the indicated sub-indices.
Source: Barclays Research

Higher earnings, or just higher yields?

On 7 September 2016, the headline yield on European Investment Grade credit fell to 58bp. We believe that this will prove to be the low-water mark for €-IG yields, which have already begun to move higher in response to the global shift in central bank rhetoric and investor anticipation that the new US administration will increase fiscal spending, while lowering the tax and regulatory burden on US corporates. The abrupt re-pricing of inflation expectations that accompanied this shift has focused 2017 outlooks on the "reflation trade".

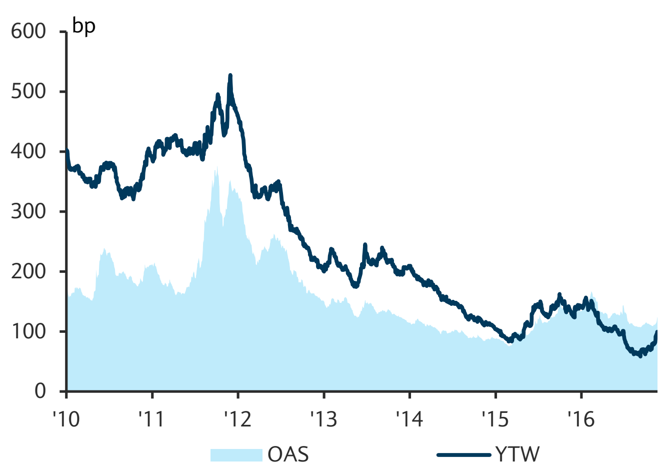
Global reflation as a backdrop for 2017 would be in sync with price action across financial markets. Since 9 November, risk free rates have risen sharply across the world (with the notable exception of JGBs,) led by inflation break-evens. At the same time, US equities have made new all-time highs and $-IG spreads have tightened marginally since the presidential elections. It will take time before we gain clarity over what policies can and will be enacted, but in the interim markets will focus on strong US data and a likely Fed hike in December. Thus the reflation theme seems to have further to run and government yields will continue to levitate higher in Q1, based on the forecasts from our colleagues in Rates research.

In this scenario, we expect corporate yields to move steadily higher in €-IG. The relationship between interest rates and corporate bonds is complex, resting on the relative mix of rising real rates and rising inflation (*An abundance of macro catalysts emerge*, 15 February 2013). However, even if rising rates are followed by stronger corporate earnings, which should be positive for spreads, there is no evidence that the beta of €-IG spreads to bund yields is large or even stable. For €-IG, there is insufficient spread-cushion or spread-beta to offset rising bund yields. Hence, corporate yields should rise, and total returns will be slim-to-negative. In the near term, this would also be a headwind for retail demand, where we have already observed a slow stream of outflows in recent weeks.

In our view, the low-point in yields reflected a bizarre 'Goldilocks' environment following the UKs vote to leave the EU. Post-referendum, central banks were quick to respond with policy easing in anticipation of near-term volatility and a sharp contraction in economic activity. In reality, financial market moves were muted and there was no measurable deceleration in European growth. As a result, fixed income markets enjoyed the pleasure of policy easing without any near-term pain from an economic slow-down; this pushed yields and spreads lower in concert, particularly once the CSPP began purchasing corporate bonds (Figure 5). It would take a very specific set of circumstances for this combination to be repeated.

FIGURE 4

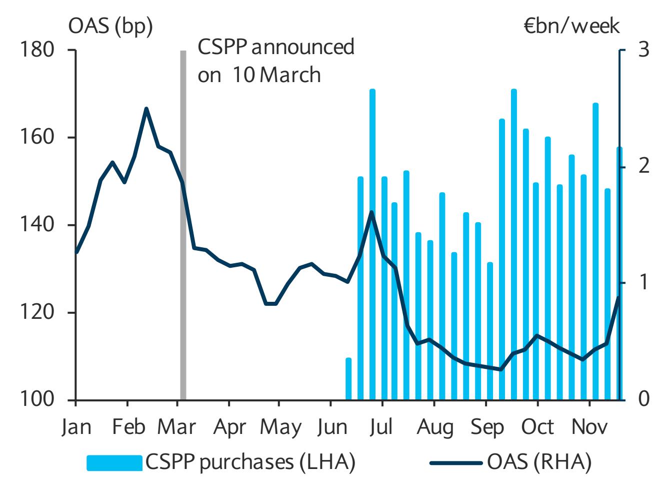
€-IG corporate bond yields reached their lows in September



Source: Barclays Research

FIGURE 5

CSPP purchases drove spreads lower post-referendum



Source: ECB, Barclays Research

In contrast, the global reflation trade would work in the opposite manner. While growth and growth-supportive policies may emerge in the second half of 2017, tighter monetary policy is likely to arrive more immediately, via a Fed hike in December and a likely slowing of ECB asset purchases in March. Indeed, even if central banks do not explicitly tighten policy, the markets have already tightened financial conditions materially: €-IG yields have risen c.40bp from the lows and yields have risen further for several sovereigns. As such, corporates will suffer the pain of tighter financing conditions in the near term, while any growth in earnings will not emerge for several quarters. Our concern is that earnings growth does not emerge at all in Europe, or at least not before investors run out of patience.

In the extreme case, it is also possible that the potential "good news" is fully priced and that President-elect Trump proves, in actuality, to be more outspoken than currently expected, while under-delivering on the market-positive elements of his policy resume. For example, our US economists expect only a modest fiscal stimulus, mostly delivered in 2018. Fiscal easing could also be skewed away from spending and towards corporate tax cuts, which have a lower growth multiplier. Further, there is also the risk that the 'good news' does not make it across the Atlantic. The new US administration's policies can be broadly described as 'America First' in a number of ways; most obviously, European corporates would not benefit from cuts in US taxation. In that scenario, Europe is more likely to slip into the bad-equilibrium where yields rise without an offsetting increase in corporate earnings.

Although it is true that central banks are less likely to pull back from policy normalisation if growth remains disappointing, we do not think that government bond yields would be able to sustainably make new-lows for several reasons. In particular, we note that yields did not trough in November, at the time of the US elections, but in September, after the BoJ *de facto* announced a tapering of its asset purchases, by shifting its focus to Yield Curve Control. The driver for this shift in policy framework was the domestic political stress that was emerging from the solvency impact of negative JGB yields on life insurers and pension funds. This is exactly the constraint on negative yields we envisioned in this year's *Equity Gilt Study*.

More generally, the stress on financial institutions, particularly pension and insurance funds, quickly rose in prominence post the UK referendum, as pension fund deficits ballooned in response to falling real interest rates. As a result, the BoE came under increasing domestic pressure with regard to its policy easing. The ECB has also faced similar questions regarding the effect of negative rates on European financial institutions. In short, the external costs of low and negative rates for financial institutions are now resulting in very real political costs for central banks. Thus, while the scope for policy easing in response to negative shocks is not zero, it is constrained and the scope for yields to fully reverse their recent rise is limited, in our view. More practically, the eligible universe of bonds is rapidly being consumed by the ECB and BoJ, placing constraints on their ability to maintain open-ended purchases.

As such, we believe investors under-appreciate the size of the negative shock that would be required to trigger further policy easing, such as an expansion of the CSPP. Put in market parlance, the central bank put is struck much further out of the money than previously, and hence the market is, in our view, underestimating the downside risks, not just to political and economic outcomes but also to financial asset prices.

Given that forecasting 2017 rests heavily on creative interpretation of the vague and broad election promises of an unusually volatile US administration, it is unclear which of the two outcomes should form our base-case: broad global reflation or a tightening of financial conditions. Indeed, we may well test both hypotheses over 2017 as a whole. For the sake of serendipity, we assume that markets are correct. However, even in the upside scenario we see arguments for credit spreads to widen, as central bank activity would extend end-cycle dynamics; a phase of the cycle that tends to result in fundamental credit deterioration.

Reflation: life after CSPP

From our perspective, the key feature of reflationary economics is higher corporate earnings growth that results in corporate balance sheets that organically de-leverage, in the absence of actively leveraging decisions. In the reflation scenario, where today's market interest rates are validated by strong growth in the second half of 2017, we expect further normalisation of monetary policy, including a reduced pace of asset purchases by the ECB. This is a risk we flagged in September, since when there have been some apparent trial-balloons floated in the media, discussing the potential for a reduced pace of ECB asset purchases.

Our economists expect the pace of asset purchases to be slowed next year, most likely in March. While the timing is unclear, given the hard math with regard to EGB purchases, it will be challenging for the governing council to create scope for EGB purchases to be maintained throughout the whole of 2018, even at a reduced rate. For this reason, we believe that, at some point in 2017, credit investors will need to come to terms with a slowing, and an eventual end, of the CSPP. Even if the program matures in 2018, the spread impact of planned central bank normalisation should be felt in 2017, in our view.

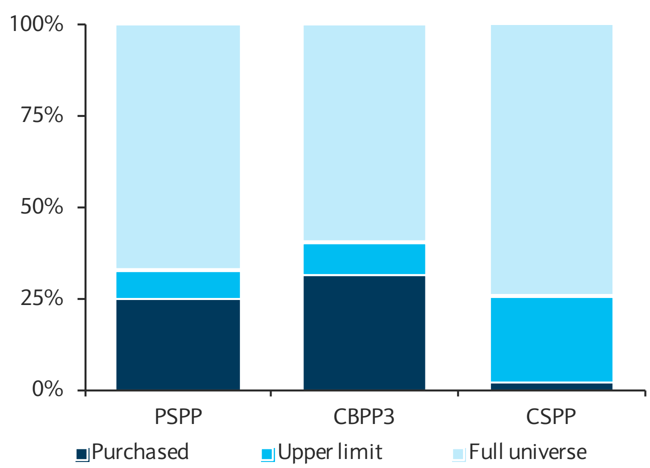
Life after CSPP

Judging the reaction of €-IG spreads to any announced reduction in overall asset purchases is unusually complex, with two particular unknowns. First, because there is no explicit target for CSPP purchases, most or even all of the slowdown could be directed towards EGBs. Second, it remains an unanswered question whether the effect of central bank purchases on markets reflects the stock of buying, the flow of buying, or some other mechanism.

Specifically for corporate bonds, we suspect that at current levels of market ownership, the CSPP is operating via signalling and flow-dynamics. The ECB owns less than c.3% of €-IG indices and, while this will rise to c.5% by March 2017, this is far smaller than its holdings of EGBs and covered bonds (Figure 6). Hence stock-effects are likely to be small. As a result, spreads are likely to re-price wider when the CSPP begins to slow, as supply-demand dynamics for the asset class are forced to adjust. While the spread between in-scope and out-of-scope bonds (and also between financials and non-financials) does not appear particularly distorted, we note there are some areas of credit where underweights ahead of any potential changes in the CSPP dynamics make sense. In particular, BBB rated in-scope bonds appear rich on a risk-adjusted basis (Figure 7), and are likely to underperform is CSPP is slowed. As discussed later, a potential slowing of CSPP also favours CDS over cash.

FIGURE 6

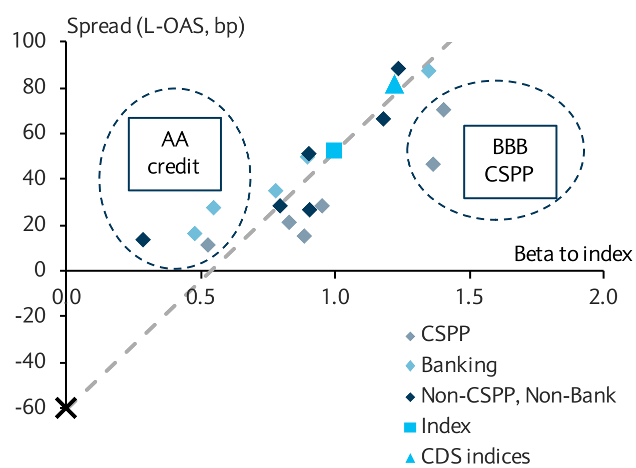
The CSPP is a small part of the corporate bond markets



Source: ECB, Barclays Research

FIGURE 7

BBB rated CSPP-eligible bonds appear vulnerable to tapering



Note See *Cash is not king*, 23 September 2016. Source: Barclays Research

There is also the risk that corporate bonds may be in an 'everything bubble', where there are no obvious distortions in relative value because all prices are artificially inflated. We note that, based on our macro-model for index credit spreads, €-IG is not obviously rich versus macro-economic fundamentals, again with the exception of BBBs and 3-5y credit (Figure 8). Hence, if valuations are inflated, it has been driven by a suppression of volatility and risk premia across all segments of credit. As a final check, we model V2X as a function of price movements in the SX5E with various lags, from 2003-2012 and then again from 2014-November 2016. This analysis suggests that V2X would have been c.3pts higher on average in 2016 if it showed the same relationship post-Q€ as it did pre-Q€, the implication is that market volatility will rise moderately as ECB asset purchases slow. That would be another headwind to any spread tightening in response to improving fundamentals.

Filling the demand gap

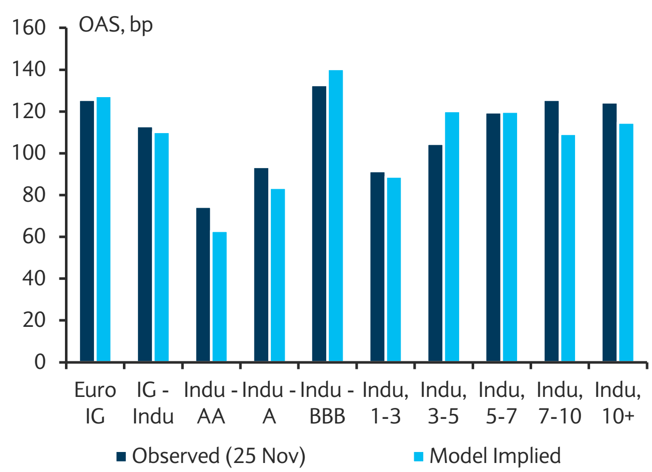
Discussions of the transmission mechanism aside, the immediate practical challenge faced by €-IG markets once CSPP begins to slow will be a reduced demand for corporate bonds, as the largest and most consistent buyer pulls back. Given that we do not expect any let-up in the pace of corporate issuance (refer to Figure 15, below, for our issuance forecasts), this demand-gap will need to be filled. The most likely and market friendly way this is likely to be achieved is via higher yields that draw in increased demand from continental insurance companies and pension funds. A more detailed discussion of this point was laid out in *The €100bn Question*, 11 November 2016.

Overall, we believe that institutional demand for credit should be sufficient to offset a slow-down in ECB purchases, in the context of higher yields overall, but that this hand-off will be a volatile one in all likelihood. Risks are exacerbated by the potential for retail outflows from the asset class in response to any slowdown in CSPP buying. As noted in (*Demand creating demand, creating supply*, 9 September 2016), retail inflows to credit acted as a multiplier on the CSPP buying of corporate bonds. As total returns have turned negative in recent weeks, those flows have gone into reverse with steady outflows becoming apparent. Given our view that credit yields will need to continue rising in order to stimulate institutional demand, these retail outflows are likely to continue, in our view. This is a further reason to expect the handoff from central-banks to private-investors to be a difficult one for credit, resulting in higher volatility and periods of stress.

Given the focus of CSPP, we would expect any weakness in spreads resulting from reduced CSPP activity to be felt in non-financials first, to the relative benefit of financial spreads.

FIGURE 8

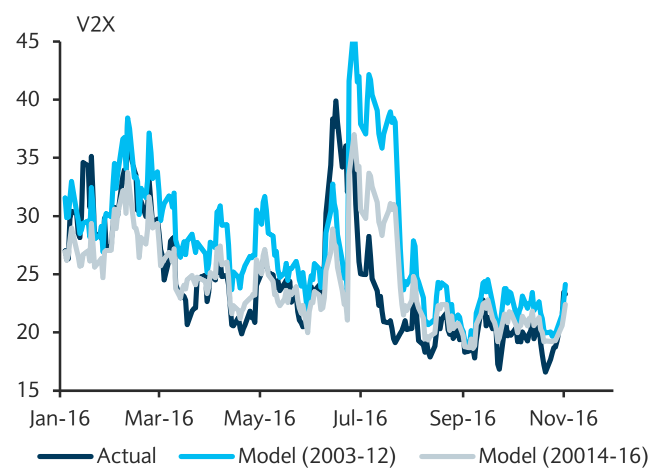
Credit valuations are generally in-line with macro variables



Source: Barclays Research

FIGURE 9

V2X does appear slightly low, versus SX5E movements



V2X modeled on lagged SX5E changes. Source: Bloomberg, Barclays Research

Financials would benefit the most from policy normalisation

While corporate earnings may or may not accelerate in 2017, higher interest rates and a growing aversion to Negative and Zero Interest Rate Policies by central banks are already a feature of the economic outlook. We view this as a clear positive for Financial Institutions, specifically the European Insurers (OW) and Banks (UW). On that basis, along with the now proven resilience of Insurers to the low yields seen over the summer, we recently upgraded the Insurance sector to Overweight. We are more confident that the sector can weather the medium-term risks (e.g. a renewed fall in yields, adapting to Solvency II) while the near term outlook appears to be improving (*Higher yields, higher rating*, 25 November 2016).

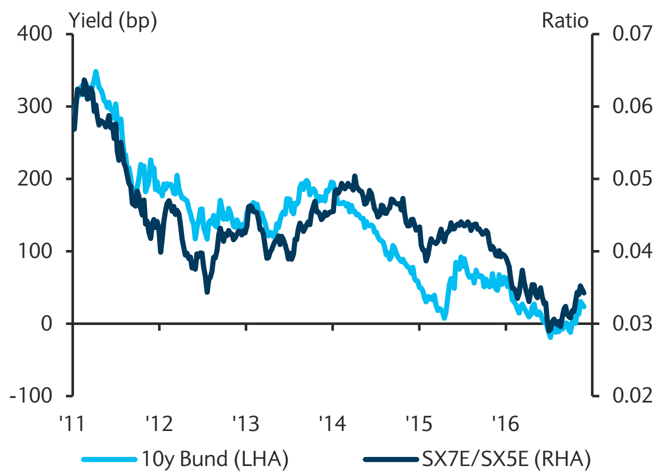
Banks: losing their sovereign beta?

European banks should also benefit from higher yields and steeper curves, not only from an operational perspective but also due to improved investor sentiment. Bank equities continue to track 10y bund yields closely (Figure 10) and recent outperformance has been a positive for credit spreads, while also reducing the execution risk associated with any bank capital raises in Q1 next year. Combined with other positives for the banking sector, such as an apparent step back from ever-higher capital ratios and more stringent RWA calculations, the outlook for banks is rapidly improving. There are also positive tail risks in 2017, such as an earlier end to CSPP (which should help bank credit outperform non-financial sectors) or a partial roll-back of US financial regulation under the Trump administration.

Nevertheless, we are also aware that European banks have, historically, been used as proxy vehicles for expressing a view on specific EU sovereigns. This, along with our negative take on the BRRD's implication for systemic risks, was a keystone of our Underweight rating in *Drowning not waving*, 22 July, 2016. Since then, the recapitalisation plans at MONTE have continued to struggle, placing political and systemic pressure on other Italian banks, much as we had anticipated. Despite this, and despite upside surprises from the CSPPs purchase activity, the banking sector has outperformed, particularly over the past month. Indeed, our spread model (see: *Too much of a good thing*, 11 December 2015 for details) shows that while the peripheral premium has risen by c.15bp since the end of September, the financial premium has actually been falling (Figure 11). Thus, evidence suggests that bank credit has been more responsive to rising rates and rising equity valuations than Italian risk premiums, which have been rising for BTPs. If this persists, it would represent a material change in the risk-reward of the banking sector.

FIGURE 10

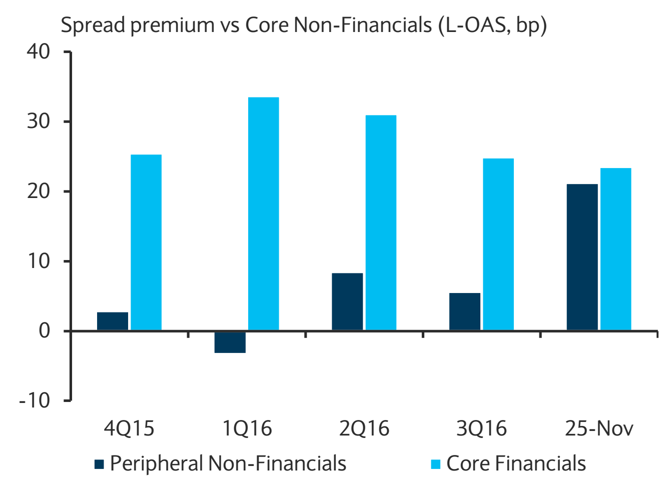
Bank equities have closely tracked EGB yields



Source: Weekly observations since 1 January 2011. Source: Barclays Research

FIGURE 11

Their beta to sovereign risks appear to be falling



Note: Excluding Metals & Miners and Autos. Source: Barclays Research

With this in mind, we view our UW on the banking sector as tactical rather than strategic. Near-term risks associated with the Italian referendum and Italian bank capital raises remain and we believe European banks are still at risk of a material re-pricing in more negative outcomes. However, further evidence that European banks have lost their beta to systemic and sovereign risk would materially change the risk-reward of the sector, and likely force us to reconsider our stance.

Non-Financials: America First

The 2017 outlook for non-financial sectors is, in a word, messy; though a more refined way of phrasing this is to say that the devil will be in the detail. Aside from the macro concern that a slowdown in CSPP buying would be a headwind for all non-financials, relative to the financial sectors, there is also the reality that most of the good news expected from the Trump administration is likely to accrue to US issuers, not European ones.

For example, our US equity team estimates organic EPS growth of 6.8% for the S&P500 next year, based on our in-house estimates for global GDP and FX changes. However, this jumps to 12% after including a potential cut in the US corporate tax rate, even after subtracting the headwinds from a stronger dollar (Figure 12). While European corporates and sectors have material revenue exposure to the US markets (Figure 13), few if any are likely to benefit to the same degree from the stronger growth, lower tax, vision of the future envisioned by President-elect Trump for US manufacturing, in particular.

Further to this, and not dissimilar to our analysis of the *Potential implications of a UK exit for European Corporates*, the nature of each company's exposure to the US will be important. Given the heavy dose of anti-trade rhetoric in President-elect Trump's electoral campaign, there should be different implications for those companies that export to the US versus ones with production facilities in the US or where the US business is self-contained. For example, the US exposure of the Retail sector is not only high, as measured by the weighted revenues of its constituents, but relatively "high quality" as Walmart (44% of the sector) has significant US pricing power and is unlikely to be affected by the sort of trade tariffs that have been mooted for the Auto manufacturers, to take one example.

Finally, we note that European corporates are unlikely to find consolation in the strength of the USD. While a weaker currency is a benefit to euro area exporters, on a trade-weighted basis the euro is actually up c.3% ytd, reflecting the weakness of GBP and Asian currencies.

FIGURE 12

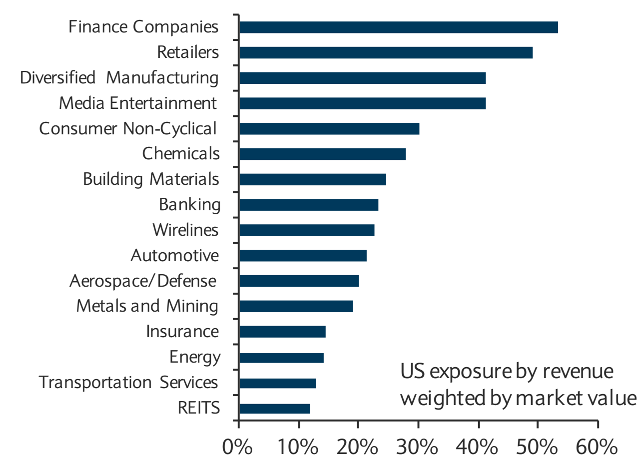
The EPS outlook for US corporate is stronger under Trump…

	2017 estimate	Contribution to EPS growth estimate
Global GDP growth	5.0%	13.7%
Change in the USD	8.0%	-7.2%
Average hourly earnings	3.5%	-3.5%
Producer price inflation	2.0%	-2.0%
Change in share count	-1.0%	1.0%
Change in tax rate	-8.0%	10.0%
Projected EPS growth		12.0%

Taken from *2017 EPS outlook: Upside under the Trump plan*, 15 November, 2016. Source: Barclays Research

FIGURE 13

…which should benefit sectors with US exposure



Note: Excluding Utility and Wireless, which have 6% and 10%, respectively. Source: Company Reports, Bloomberg, Barclays Research

Even in the case of an apparently more affected sector such as Autos, where the US-Mexico value chain for manufacturing was targeted by Trump during his election campaign, there are potential offsetting positives such as a roll-back of vehicle emission standards that were expected under the previous administration. Our Autos analysts walk through these issuers in their *Review of Autos exposure to a new US administration*, 24 November 2016.

Aside from our sector ratings on Insurers and Banking, laid out in the preceding section, below we refresh and, in a small number of cases, adjust our sector ratings on the sectors of the Bloomberg Barclays Pan European Credit index that we currently rate. In Figure 14, we summarise these views along with a number of risk and valuation metrics that we believe are most appropriate.

Retail: Downgrade to Underweight

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Retail faces numerous headwinds such as structural changes in how the consumer shops and the specific pressures on UK names from rising inflation triggered by depreciation in the GBP. While the sector has the second highest exposure to US revenues after FinCos, this is primarily a reflection of the high weighting of Walmart (44% by market value). Taking that into account, the sector is less obviously positioned to benefit from any late-cycle surge in US household consumption.

From a valuations perspective, the sector trades 2bp tighter than the broader Pan European Credit Index at 106bp in OAS. Average valuations combined with fundamental downside risks for at least half of the individual credits move us to Underweight the sector.

Transportation: Downgrade to Market Weight

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The transportation sector has performed well year-to-date, generating +224bp of excess returns, versus broader index returns of +166bp. As such, it now trades just 7bp wider than the broad index, versus the 15bp pick-up offered a year ago. As a cyclical sector, credits fundamentals should benefit from stronger growth and inflation, but the revenue exposure is highly focused within Europe, leaving limited scope to benefit from US reflation.

Autos: Reaffirm our Market Weight

Autos have performed well year-to-date, posting returns of 203bp, supported by the eligibility of issuers in the CSPP. The sector has tightened to trade only 9bp wide of the Pan-European Credit index and, despite being cyclical in nature, has a mixed outlook to the US. On the one hand, US vehicle sales could benefit from greater strength in household consumption, but, on the other, the sector is also highly exposed to President-elect Trump's anti-trade rhetoric, including potential trade tariffs on Mexico, which could disrupt the highly integrated supply chain in the region.

Related to the incoming US administration, the sector also remains highly exposed to the ongoing emissions scandal and emissions regulation more broadly. While President-elect Trump's negative view of the EPA could be a positive if his administration is able to roll back some of the more onerous emission standards due to come into force, this is not certain. At the same time, ongoing revelations with regards the scope of regulatory deception, which span jurisdictions that are less likely to ease on fuel efficiency standards, also leaves the sector open to downside tail-risks if the scale of fines balloons further.

FIGURE 14

Barclays European Investment Grade Corporate sector ratings

Sector	OAS (bp)	OAD (yrs)	Barclays Index Rating	Barclays Sector Rating	Index weight	Index Weights: Peripheral	Core	EM	BBB	Sub	GBP	# Tickers	Largest issuer	Index weight	US Revenues
Aerospace/Defense	82	6.5	A2/A3	UW	0.3%	0.0%	67.1%	0.0%	6.9%	0.0%	22.0%	4	AIRFP	48.3%	19.8%
Diversified Manufacturing	82	6.4	A1/A2	UW	1.4%	0.0%	36.0%	0.0%	13.5%	4.3%	10.5%	19	SIEGR	15.9%	41.1%
Chemicals	86	5.7	A3/BAA1	UW	1.5%	0.0%	74.1%	0.0%	38.7%	0.0%	2.3%	21	BASGR	17.3%	28.0%
Finance Companies	88	6.5	AA3/A1	-	0.8%	6.0%	4.8%	0.0%	11.7%	1.5%	31.8%	6	WELLTR	9.9%	53.0%
Food and Beverage	98	7.1	A3/BAA1	MW	3.0%	0.9%	50.4%	1.7%	46.0%	0.0%	6.2%	29	ABIBB	25.8%	28.3%
Consumer Non-Cyclical	100	6.8	A2/A3	UW	8.6%	1.3%	37.2%	3.8%	42.1%	2.3%	12.8%	73	ABIBB	8.9%	23.3%
Supermarkets	101	4.3	BAA1/BAA2	MW	0.5%	5.0%	81.0%	0.0%	99.7%	0.0%	9.8%	6	CAFP	42.6%	2.1%
Pharmaceuticals	102	7.3	A2/A3	UW	2.9%	0.0%	26.5%	9.4%	29.0%	6.9%	14.9%	15	SANFP	13.3%	42.0%
Retailers	106	8.3	A2/A3	UW	0.7%	0.0%	18.8%	0.0%	44.4%	0.0%	46.5%	8	WMT	44.3%	47.5%
Total	108	6.2	A1/A2		100.0%	7.1%	30.7%	6.0%	36.6%	9.4%	18.5%				
Building Materials	111	4.7	BAA2/BAA3	UW	1.1%	17.6%	56.6%	0.0%	88.4%	0.0%	5.7%	11	SGOFP	16.7%	24.9%
Transportation Services	115	6.7	BAA1/BAA2	MW	2.6%	21.0%	36.6%	0.0%	69.4%	2.6%	25.1%	32	HTHROW	14.9%	12.8%
Automotive	117	4.5	A3/BAA1	MW	3.5%	5.5%	73.8%	0.0%	50.4%	7.0%	11.5%	21	VW	21.4%	21.1%
Utility	120	7.0	BAA1/BAA2	MW	6.8%	33.7%	29.8%	1.0%	69.5%	5.8%	39.5%	59	ENGIFP	9.3%	10.7%
Media Entertainment	124	5.9	BAA1/BAA2	MW	0.8%	0.0%	56.0%	1.3%	97.8%	5.0%	8.1%	15	WPPLN	14.3%	41.2%
Energy	125	6.0	A2/A3	MW	3.4%	20.5%	51.9%	1.3%	34.0%	11.8%	8.7%	15	TOTAL	25.6%	14.2%
Banking	126	4.9	A2/A3	UW	20.6%	7.0%	37.1%	0.5%	30.9%	21.7%	13.7%	93	RABOBK	7.3%	23.7%
Wirelines	131	6.9	BAA1/BAA2	OW	4.2%	16.7%	40.5%	0.0%	89.8%	4.8%	21.3%	14	ORAFP	18.7%	22.8%
REITS	138	6.4	A3/BAA1	-	2.2%	6.1%	53.3%	0.6%	61.4%	2.6%	20.7%	42	ULFP	12.0%	11.7%
Wireless	148	6.5	A3/BAA1	-	1.2%	0.0%	4.2%	40.1%	72.6%	6.3%	25.6%	6	VOD	49.1%	5.8%
Metals and Mining	186	5.8	BAA1/BAA2	MW	0.9%	0.0%	0.0%	5.9%	58.2%	11.0%	22.3%	4	BHP	44.7%	19.0%
Insurance	266	6.5	A3/BAA1	OW	4.2%	9.1%	45.8%	0.7%	53.6%	65.0%	28.1%	51	ALVGR	13.2%	13.9%

Source: Bloomberg Barclays Indices, Barclays Research

Corporate response to a stronger growth outlook: more debt

The final headwind to spread compression in the reflation scenario is our expectation that corporates will respond by issuing bonds. Strong growth not only encourages corporates to rely on organic deleveraging over more proactive pay-downs, but higher debt loads appear more manageable once they are amortised by *assumed* earnings growth. Higher growth, specifically earnings growth above the cost of debt, also justifies increased investment, either internally or via growth-acquisitive M&A. Overall, and after several years of justifying why European corporates have not more aggressively accessed progressively lower funding costs, in 2017 we believe that companies will be more inclined to borrow and spend in the pursuit of growth and shareholder returns. To the extent that the business cycle has been extended, it is late-cycle dynamics that would be kept in play by reflation, which tend to be more beneficial to equity holders than credit investors.

In our baseline, we expect gross issuance to reach a new post-crisis high of €565bn, driven by an all-time high in non-financial supply of €310bn. In that scenario, net issuance would be similar to this year, but even more heavily skewed towards non-financials over Financials (Figure 15). This is a sizable volume that will need to be digested, particularly in the context of diminished demand from central banks and potentially also retail investors.

FIGURE 15

Barclays 2017 €-IG corporate issuance forecasts

		2017 (est)			2016 (est)		y/y
		Gross	Redemp.	Net	Gross	Net	Gross (%)
EUR (€bn)	Fin	255	280	-25	240	0	6%
	Non-Fin	310	140	170	280	150	11%
GBP (£bn)	Fin	20.0	25.0	-5.0	17.5	-5.0	14%
	Non-Fin	22.5	15.0	7.5	17.5	7.5	29%

Note: Gross issuance forecasts are Barclays Research, redemptions are from Dealogic. €bn amounts rounded to the nearest €5bn, £bn amounts rounded to the nearest £2.5bn. Source: Dealogic, Barclays Research

Curve dynamics under higher yields: probably steeper

As a final thought in consideration for how higher yields are likely to affect credit spreads in 2017, we note there are technical effects in play as well. Specifically, across the yield curve we see two distinct factors that are likely to be important drivers of relative performance. First, as we noted in *Flatter for a reason*, 4 November 2016, the front end of curves is 'unnaturally' flat due to the yield-driven nature of demand for these instruments which can be summarised as: a strong demand for positive yielding instruments; a strong aversion to negative yielding instruments. Combined with steepness at the front of the bund curve, this technical has flattened or, in cases, inverted spread curves. Higher yields should therefore drive a steepening of 3s5s as this technical goes into reverse.

Further out the credit curve, a similar dynamic is in play. Demand for the very longest parts of the €-IG credit curve, particularly the 12-15y paper that was popular in early 2016 is heavily driven by the yield-targeting behaviour. The initial reaction to a move higher in credit yields, therefore, is likely to be a shift of yield-driven demand to shorter tenors, which would steepen the credit curve as there is no other natural buyer of 10y+ €-IG corporate paper.

As a final note, we highlight a more extreme version of these dynamics would be if EGB yields rise far enough that insurance and pension funds are able to meet their yield targets via government bonds alone. That would trigger a more meaningful re-pricing of credit, as demand for spreads would be driven by Solvency II capital efficiency, rather than matching to liability yields. In that case, a substantial bear-steepening of €-IG spread curves could materialise, as the entire valuation frame-work for credit is upended.

The risk of crowding out is forgotten, but not gone

Thus far, we have focused almost entirely on the reflation scenario, in which we assume that the recent rise in government yields has presciently heralded a future rise in US growth and corporate earnings. In this future, the headwind for corporate credit will be navigating the crosswinds of reduced central-bank support and a growing appetite for debt issuance by non-financial corporates. But what about the less appealing alternative, that markets have run ahead of reality and growth does not or cannot accelerate?

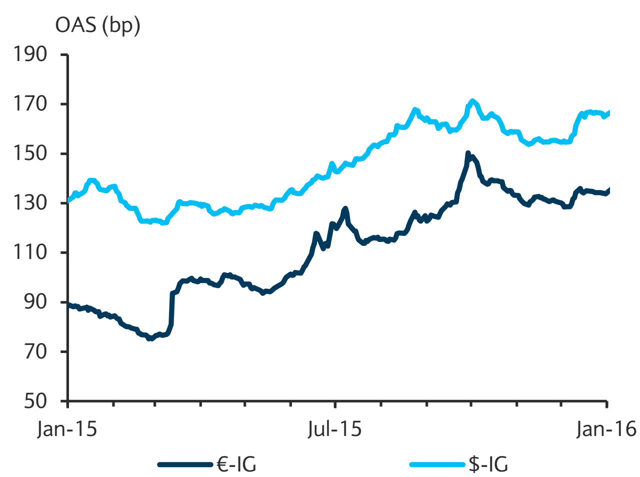
An alternate version of this is that the Fed moves to counter the risk that the US economy will overheat if fiscal stimulus is enacted. This is not as farfetched (or as politically charged) as it may seem: GDP growth of 1.5-2.0% in the US is close to most academically grounded estimates of economic potential, while domestic inflation is running above 2% (based on our in-house measure, see *Creating domestic inflation*, 17 August 2015). Although a stronger USD is becoming a headwind to both activity and inflation, with unemployment at or below the Fed's NAIRU estimates, the FOMC would normally be expected to produce more than the c.40bp of tightening currently priced into the US rates curve for 2017.

Further, if the US economy is operating at its potential, then government stimulus would risk crowding out the private sector investment. While this may seem an extraordinary idea given the prevailing focus on liquidity-trap dynamics and secular stagnation, we note that the dynamics of crowding out would simply be higher borrowing costs, ie, rising UST yields. In that sense, the mechanism may already be in operation and, as noted throughout our 2017 outlook, it is incumbent on earnings to justify this move, *ex post*. Alternately, we are likely to see spreads come under gradual, but sustained pressure as issuance continues apace but earnings growth fails to keep up. This would be similar to the dynamics seen in 2015 where there was no immediate bad news for €-IG, but heavy supply kept the asset class under pressure over the year as a whole as financial conditions tightened (Figure 16).

The most likely signals of stress in this scenario, and hence a barometer we will be watching as a leading signal for €-IG markets, will be the marginal USD funder: most likely $-HY or $-EM. Historically, there has been a strong association between US lending standards and US default rates (Figure 17), so this will be an area to watch for clues as to whether we will have a more or less happy ending to the so-called reflation trade. Signs that the rise in UST yields is putting stress on $-HY would be a red flag to us, hence it is key that $-HY spreads tighten and offset the moves since September, in our view.

FIGURE 16

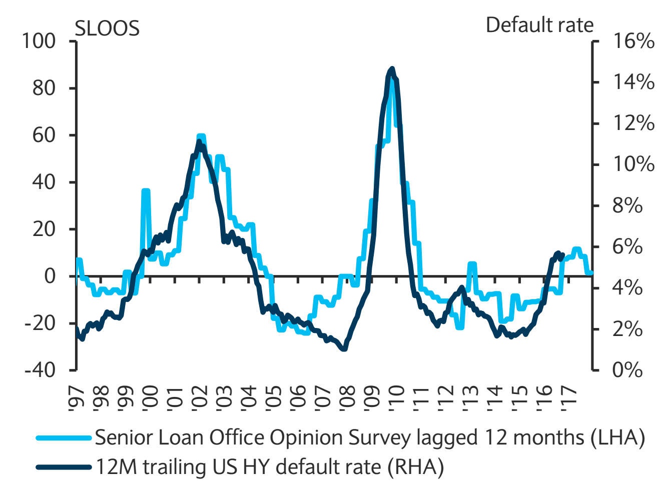
Spreads bled wider in 2015, under simple weight of supply



Source: Barclays Research

FIGURE 17

Tighter financing conditions lead to credit stress over time



Source: Federal Reserve Board, Moody's, Barclays Research

Risk-reward favours being underweight, particularly in €-IG

As noted upfront, it is unusually difficult to say if the market's pricing of a higher corporate earnings environment is justified, given the uncertainty with regard to US economic policy in 2017. That said, if the market is proven correct, the upside seems more likely to accrue to equity holders than credit investors, as corporate spreads will face the dual headwinds of policy normalisation and rising bond issuance from corporates. In our view, the upside hope for €-IG returns is limited to a narrow range of outcomes in which central banks maintain their aggressive accommodation, despite accelerating earnings growth and inflation.

Tail risks are centred on Europe

Further to the challenging base case for European credit, we also note that the many of the *ex ante* identifiable tail risks appear to be centred on Europe. The most immediate of these is the Italian referendum, along with its knock-on implications for the recapitalisation plans of its banking system. To this, we can add a heavy election calendar throughout the next 12 months, with votes in Austria, France, Holland and Germany.

While focus will, inevitably, fall on the most obviously negative outcomes – in particular the potential election of an overtly anti-euro government in a country such as Italy or France – one of the key lessons highlighted by *The Politics of Rage* is that anti-establishment figures do not need to win elections to shift political discourse meaningfully. While the focus is currently on Donald Trump's presidential victory, this was presaged by the UK referendum vote to exit the EU, which occurred despite UKIP only having a single English MP. On that note, we find it noteworthy that the Center-Right candidate in the French elections is campaigning on the basis of greater sovereignty, including a renegotiation of Schengen; these sorts of policies do not bode well for completion of the currency union.

Similarly, our economists note that establishment parties in Italy may be able to obstruct a potential electoral victory by 5SM if Senate voting reforms are rejected and the government fails. But this would risk a voter backlash, as *The Politics of Rage* (23 October 2016) is driven by perceptions of democratic deficiency. Italian voters could seek to punish establishment parties if they attempt to stack the deck in their favour. Further, a system that limits 5SM's ability to win a majority, by pushing the system toward coalition governance, would also undermine Italy's ability to form strong governments with the political capital to pass needed economic reforms and drive convergence with the rest of the euro-area.

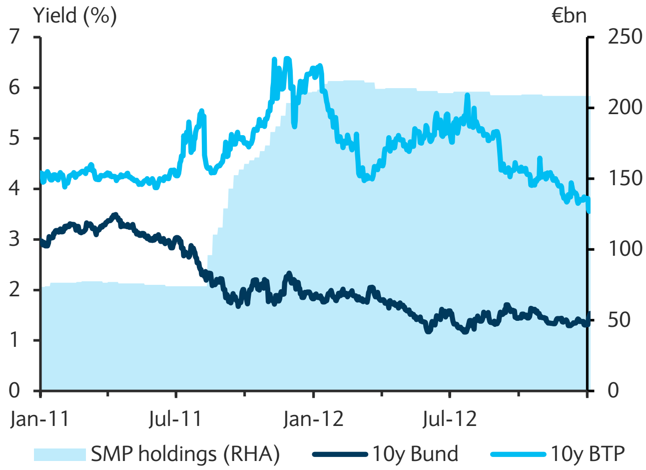
To these risks we can add the trigger of Article 50 by the UK at some point during the year (which remains our base case and that of our economists). Realistically, there is no 'good time' for this to happen; whenever notice is given by the UK, it is likely to strain the political capital of outgoing and incoming governments across the continent. A positive take is that these risks are all known and while the *Politics of Rage* has generated surprise electoral results, thus far it has not been a material headwind to financial assets. Instead, the market may proceed to scale this wall of worry. However, any slip or misstep is likely to be in Europe, rather than the US, and hence we see greater downside risks to €-IG than to the $-IG market. This is another factor in favour of US over European credit.

CSPP can't cap them all

Finally, and in anticipation of a likely refrain from our readers, we note that the ECB is likely to respond to severe downside and tail risks with increased policy accommodation (to the extent this is possible). This could include extending CSPP purchases – or even the extreme outcome that CSPP activity is increased as a share of the overall APP (though we note that the only formal asset purchase target is for €80bn/month across the APP as a whole, hence an announcement of increase CSPP activity is much less likely than a *de facto* increase in corporate bond buying by the ECB). We have only one comment to make on this front: *it is unlikely to reverse the market's momentum in periods of sustained weakness.*

FIGURE 18

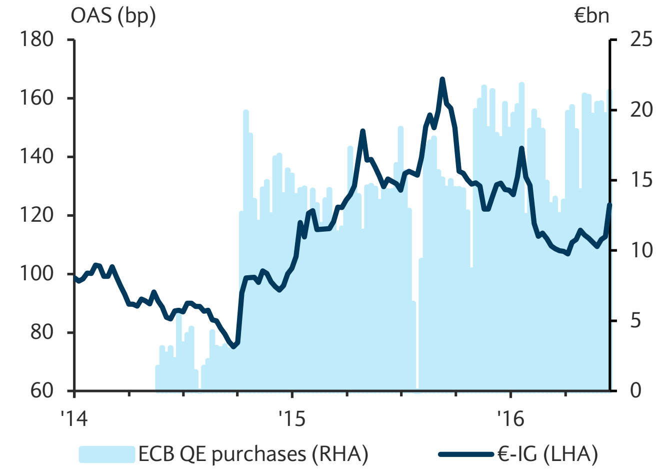
EGB spreads widened in 2011 even when the SMP was active



Source: ECB, Bloomberg, Barclays Research

FIGURE 19

Credit spreads were also able to widen in Q1, despite PSPP



Source: ECB, Bloomberg, Barclays Research

We base this on simple analysis as well as historical observation. First, we note that BTP yields (along with the Italy/Germany spread) sold-off aggressively in H2 2011 despite active intervention by the ECB via its Securities Market Programme (Figure 18). Similarly, we note that €-IG the post-crisis lows were touched the day before the ECB began purchasing covered and government bonds in Europe (Figure 19). This makes sense to us, because we view central bank asset purchases as a rising tide that tends to lift all boats/credits: hence the even distribution of performance in €-IG across in-scope, out-of-scope, and financial spreads. In contrast, downside risks, particularly those centred on credit concerns such as potential default, redenomination risks or (more mundanely) potential downgrades result in concentrated selling of a small number of securities, issuers or sectors. This can quickly overwhelm a mechanical buying programme that is not purposed to disproportionately support specific credits that come under market pressure.

This is not to say that CSPP has no effect on spreads, but it is worth reminding investors that central bank purchases do not make credit investing a 'one-way bet', nor do they cap the potential downside for credit spreads at levels close to those currently prevailing. This could be a particularly painful lesson to learn for any investor who has become overly reliant on central bank largesse as a risk-management technique.

CDS-cash basis marginally down if Bunds allow

Just as the CSPP and negative Bund yields have exerted a meaningful influence on corporate bonds, CDS indices have been affected in measurable but much more nuanced ways. We review recent behaviour of the CDS-cash basis – which is likely to drop over the year – and present our EOY17 forecasts for the CDS indices.

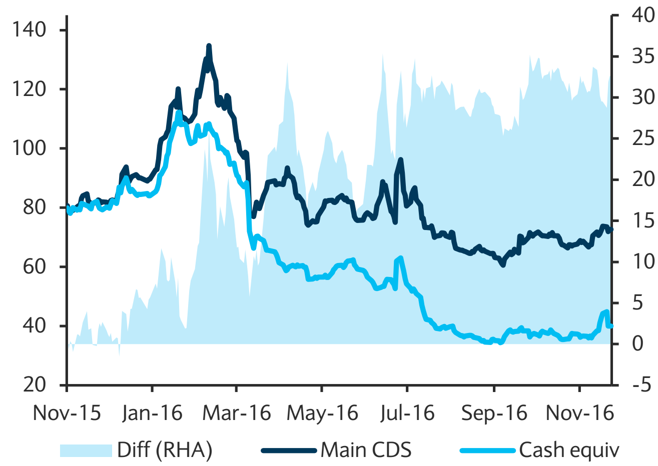
iTraxx Main CDS-cash basis: down with higher Bund yields or CSPP tapering

When we wrote the outlook for 2016 a year ago (*Global Credit Outlook 2016: An aging cycle*, 4 December 2015), we had pencilled in a move to a negative CDS-cash basis for €IG, much akin to what we see in the $IG market. However, with the introduction of the CSPP, this call was evidently proved wrong (Figure 20); having started at roughly flat basis for iTraxx Main equivalents, CDS-cash basis now stands at +30bp, near multi-year highs.

As we discussed in *CDS-cash basis - past, present, future*, 18 November 2016, there are many reasons for this – from the theoretical to the practical. For example, with a new marginal buyer of cash bonds, mark-to-market volatility is – and would be expected to

FIGURE 20

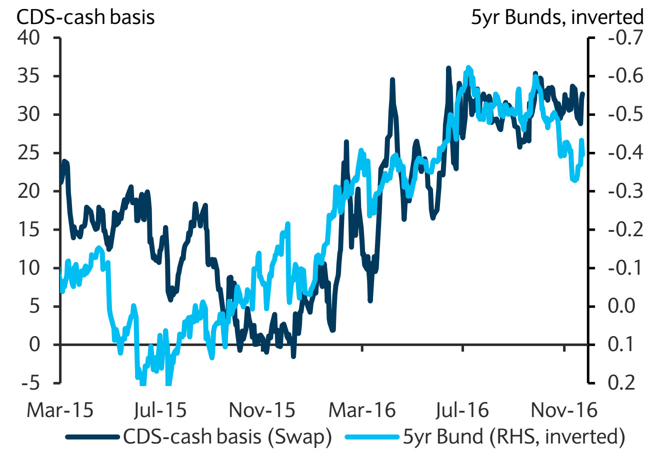
iTraxx Main CDS-cash basis: Up and away



Note: We define a constituent-matched CDS-cash basis by identifying the bond of each constituent nearest to 5yrs and identifying the maturity-matched CDS, aggregating this across constituents and time. Source: Barclays Research

FIGURE 21

CDS-cash basis rising with declining Bund yields



Source: Bloomberg, Barclays Research

remain – low in cash bonds, and lower than in CDS. CDS protection sellers need to be compensated for this by being paid a higher spread and, as we discuss in the article cited above, the CDS-cash basis does not appear particularly wide in this measure.

On a more practical note, for an investor holding bonds but considering selling them to sell protection instead, the cash proceeds have to be invested. With Bund yields negative, this is a less appealing option and not surprisingly, we find a meaningful relationship between CDS-cash basis and inverted levels of 5y Bund yields (Figure 21).

This reasoning also provides a framework for understanding what could cause the CDS-cash basis to drop. Our rates strategists forecast 5y Bund yields to reach -25bp by Q4 2017, from spot yields of around -46bp. Assuming, simplistically, that CDS-cash basis for €IG depends only on this and, based on the relationship in Figure 21, their forecast implies that the CDS-cash basis would go from the current 30bp to the 20s for iTraxx Main. Granted, CDS-cash basis depends on more than just the Bund level, but this gives a good idea about the likely reaction.

The other, significantly more bearish, way in which CDS-cash basis could correct is if mark-to-market volatility in cash and CDS converges; for example, if the CSPP slows or ends (or, much more unlikely, the ECB starts selling CDS protection), as the compensation for taking mark-to-market volatility should be similar then. In fact, given the superior liquidity profile of CDS indices relative to cash, this could bring about a period where CDS-cash basis in Europe could go to zero, if combined with meaningfully higher Bund yields. Needless to say, we are not holding our breath for this outcome, but we do think it likely that CDS-cash basis will be 10bp lower by end of 2017.

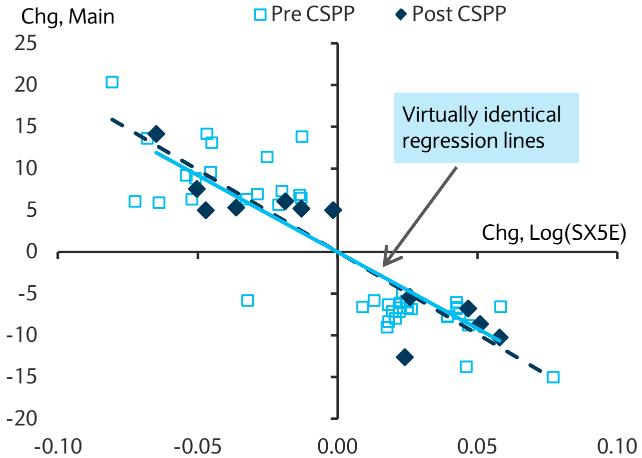
iTraxx Main risk footprint – as if CSPP never happened: keep on hedging

Picking up on our discussion of a positive CDS-cash basis reflecting a compensation for taking mark-to-market volatility, we argue that in spite of the CSPP, the footprint of iTraxx Main in the market has not changed – in two important ways.

Firstly, following a one-off tightening in Main with the announcements of CSPP in March 2016, when Main outperformed SX5E by about 12bp, Main has since reacted to changes in SX5E as if CSPP never happened. We can illustrate this by comparing the beta of weekly changes in Main to log SX5E pre/post CSPP (Figure 22), which indicates that the beta is essentially unchanged. So, whereas cash arguably has seen much lower volatility and a generally reduced sensitivity to market sentiment, this is not the case for Main.

FIGURE 22

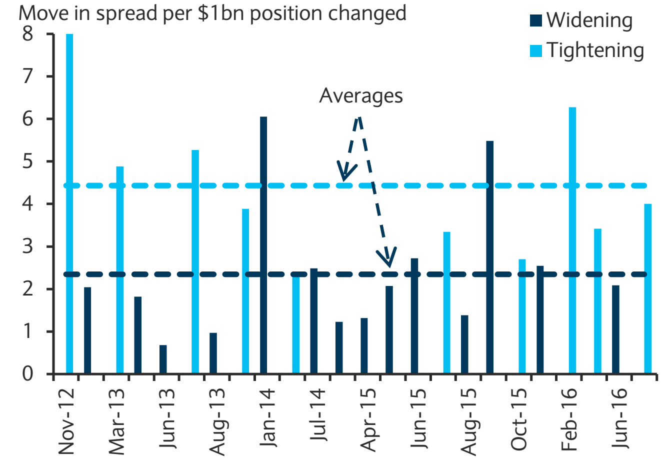
Unchanged beta of Main to SX5E pre/post CSPP



Note: Weekly data since Apr-13, conditional on at least 5bp move in Main, split into pre/post CSPP periods, showing regression lines. Source: Barclays Research

FIGURE 23

Spread-position sensitivity for periods of interest: how much spreads move in percent per $1bn of position changed



Source: DTCC, Barclays Research

Second, with the caveat that we have seen few episodes of large spread moves in either direction since the CSPP was introduced, the reaction in spreads to shifts in investor positioning has been essentially unchanged post CSPP (Figure 23). As we discuss in *CDS index positioning: No news is good news*, 14 October 2016 (explaining the methodology in detail), we further conclude that the depth of Main is essentially unchanged versus last year.

This also speaks to the fact that the viability of using CDS indices as hedges remains intact: they respond to other risk assets (equities) and they react to protection buying/selling in much the same was as they did before CSPP was introduced.

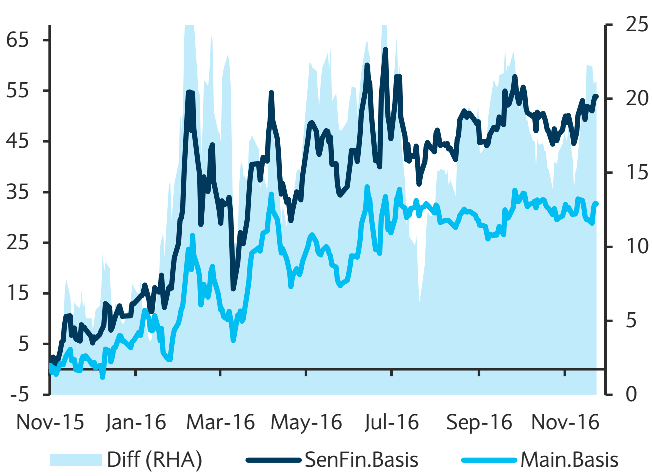
SenFin CDS-cash basis: a bumpy road to lower CDS-cash basis

Amid considerable volatility around banks in Q1 of 2016, SenFin CDS underperformed Main significantly, and also the SenFin CDS-cash basis increased materially in Q1, and has never retraced (Figure 24).

Arguably, the CSPP dynamic is not at the root of this: to the extent that the CSPP depresses non-fin cash bonds versus CDS (thereby causing a higher CDS-cash basis for Main), this

FIGURE 24

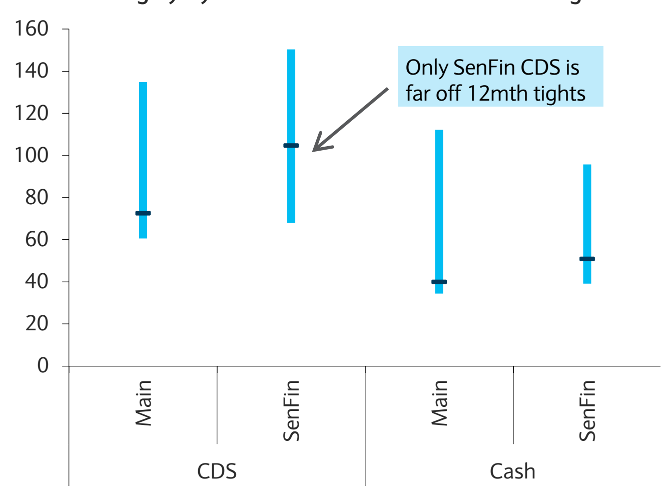
SenFin CDS-cash basis has risen vs Main CDS-cash…



Note: 5yr maturity-matched CDS-cash basis. Source: Barclays Research

FIGURE 25

… driven largely by SenFin CDS which is far off the tights



Note: 12mth ranges and current level indicated. Source: Barclays Research should be less the case for SenFin (as the ECB does not buy bank bonds). As such, the CSPP should have caused the reverse: for the CDS-cash basis for SenFin to trade inside that of Main.

The driver for the very positive CDS-cash basis in SenFin is down to the SenFin CDS index being wide, all else equal. We can see this quite clearly by looking at 12-month ranges and current levels for the four components of the Main/SenFin CDS-cash bases (Figure 25). In all but one case, we are near the 12-month tights; SenFin CDS is pretty much in the middle of the 12-month range instead.

The relative wideness of SenFin CDS can be understood in the context of significant shorts being put on at the beginning of the year by investors (Figure 26), who went from owning $4bn of protection to just shy of $10bn of protection. However, over the year, this short base has reduced (in particular after the summer), and even turned briefly to a net long risk position by investors (for the first time since 2012) – and yet, SenFin-Main differentials remain elevated (Figure 27). We attribute this to lingering concerns around the European bank system – in spite of the boost to Bund yields seen recently – in particular in the dealer community who seemed to have been happy to reduce the previous (bruising) long-risk position at still fairly wide SenFin spreads.

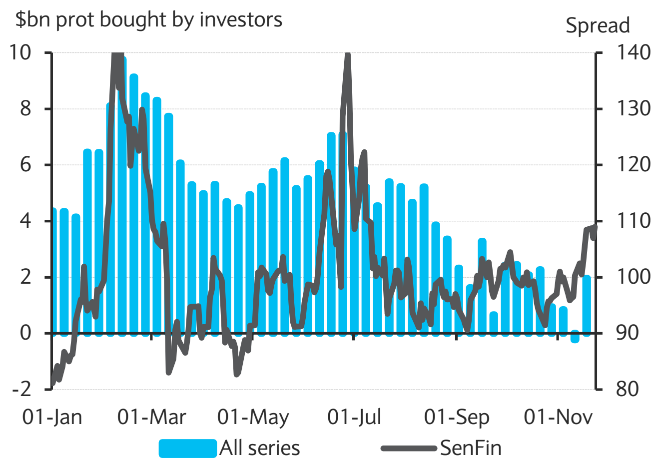
We expect a bumpy road to a lower CDS-cash basis in SenFin. The direction of travel is arguably lower, as TLAC requirements will likely make current senior CDS for banks in key jurisdictions (French, UK, Swiss and potentially others) but less attractive as hedges – see *French TLAC: The third way*, 23 Sep 2016. In the medium term, however, ongoing issues surrounding the banking system will keep SenFin volatile and wide – and in turn the SenFin-Main switch the "pain trade" in Europe.

Putting it all together – our 2017 forecasts

Based on our forecasts for IG financial and non-financial cash indices, we present our forecasts for iTraxx Main and SenFin in Figure 28. For completeness, we also include the forecast for iTraxx Crossover, which is derived and discussed separately in the HY section.

FIGURE 26

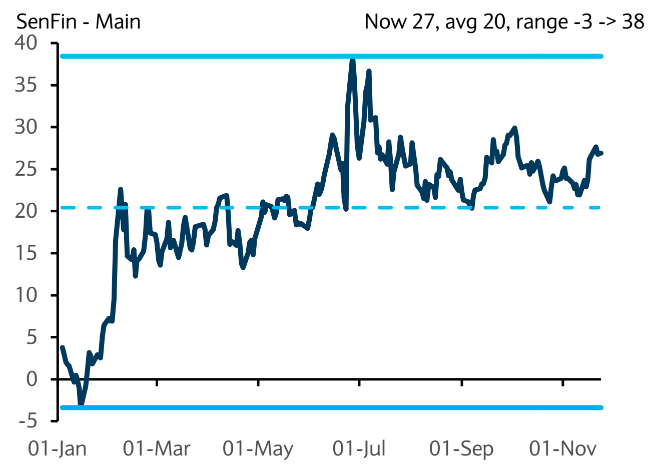
Investors have shed SenFin hedges after the summer…



Source: DTCC, Barclays Research

FIGURE 27

… but SenFin-Main differential has remained high



Source: DTCC, Barclays Research

Our forecasts for CDS build upon:

- Our forecasts for the Euro Aggregate cash indices (see Figure 3).
- An assumption that CDS-cash basis will drop 10bp and 20bp over the year for Main and SenFin respectively.
- An assumption of unchanged skew.

Interpretation of results

With our forecasts for cash indices and assumptions for CDS made above, there are a number of implications for our forecasts for Main and SenFin (Figure 29).

- In our base case, Main will be 7.5bp tighter at 72.5 by EOY 2017. This appears in contrast to our call for the €IG cash index to be slightly wider over the year, but is driven by our assumption of marginally higher rates helping CDS-cash basis of Main to decrease from near-post-crisis highs. In our upside case, in contrast, we see Main at 60bp, not quite a post-crisis tight but still a meaningful rally. Conversely, in a downside scenario, we could see Main widen by 30bp from current levels.
- In the downside scenario, in a systemically/politically driven move, we would expect SenFin to underperform Main, with the current differential of 27.5bp moving to 55bp, near the highs experienced after ECB President Draghi's "Whatever it takes" speech.

However, in both our base and upside case scenarios, we expect SenFin to compress versus Main, driven by the secular factors discussed above.

FIGURE 28

Spread forecasts for CDS indices

	Actual	Baseline	Upside	Downside
Main	80.0	72.5	60.0	110.0
SenFin	107.5	87.5	65.0	165.0
Cross	340	345	305	410
Key RV measures				
SenFin-Main	27.5	15.0	5.0	55.0
Cross/Main	4.25	4.76	5.08	3.73
Change from current				
Main		-7.5	-20.0	30.0
SenFin		-20.0	-42.5	57.5
Cross		5.0	-35.0	70.0
SenFin-Main		-12.5	-22.5	27.5
Cross/Main		0.51	0.83	-0.52

Source: Barclays Research

FIGURE 29

iTraxx SenFin-Main with scenarios

Source: Barclays Research

STERLING HIGH GRADE STRATEGY

Policy deliverance

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- **As in Europe, we believe that £-IG has seen the cycle lows in corporate bond yields. Hence, the market will struggle to match this year's excess returns in 2017 in our base case, where the BoE ends its £10bn of corporate purchases in Q1. Along with the volatility surrounding the UK's drawn out exit from the EU, this implies that £-IG will face a less supportive backdrop for credit spreads 12 months from now.**

- **The currency has been the key shock absorber for the UK's economy and its financial markets since the referendum. However, most UK exporters hedge in advance and have not benefitted from a cheaper currency. Furthermore, FX volatility has likely weighed on the willingness of non-UK investors to add exposure to £-IG.**

- **More generally, the value proposition offered by £-IG remains challenging. The index is cheap in spreads relative to $-IG and €-IG, but this is an artefact of compositional factors and FX/Rates hedging costs. The yield looks attractive relative to €-IG if investors are willing to run exposure to both gilts and GBP.**

- **Political risks will remain elevated next year, despite there being no elections or referendum in the calendar. The process of triggering Article 50 will be politically stressful and, in a tail scenario, could result in early elections in the UK. The short-term spread widening risk from political machinations is limited by the potential for the CBPS to be upsized. However, there is also a long-term credibility risk for the sterling market if the UK is viewed as (even) less political stable.**

FIGURE 1
Barclays 2017 £-IG excess returns forecast

	OAS, 25 Nov	Baseline	Upside	Downside		OAS, 25 Nov	Baseline	Upside	Downside
GBP Corp	149bp	0.5%	2.2%	-4.0%	1-3yr	112bp	0.3%	1.1%	-0.2%
GBP Non-Fins	129bp	0.4%	2.9%	-3.9%	3-5yr	146bp	0.3%	1.7%	-0.4%
					5-7yr	163bp	0.3%	1.8%	-2.6%
AA	85bp	-0.1%	1.3%	-2.6%	7-10yr	169bp	0.6%	2.4%	-4.0%
A	128bp	0.6%	2.1%	-4.1%	10-15yr	156bp	0.1%	2.6%	-5.6%
BBB	182bp	0.9%	2.7%	-4.6%	15yr+	144bp	1.3%	2.8%	-7.3%

Forecasts refer to the Bloomberg Barclays Sterling Aggregate Corporate Index and the indicated sub-indices. Source: Barclays Research

FIGURE 2
Key investment themes for £-IG corporate credit in 2017

Strategic Theme	Investment Implications
£-IG corporate yields have seen the low for this cycle	Expected £-IG returns look poor versus a mix of equities and gilts. …given the large gains on equity portfolios post-referendum, retail funds will likely be conservative ahead of potential outflows from corporate bonds …but pension top-up payments could start to flow into credit in H2.
Valuation is the £-IG market's only friend...	£-IG has retaken its position as the cheapest DM currency credit index, but this advantage evaporates after adjusting for composition and hedging costs. Yields are well above €-IG, which should support short dated £-IG
...and uncertainty is its worst enemy	The triggering of Article 50 could be a drawn out and strained process. The tail risk of snap elections cannot be discounted.

Source: Barclays Research

An economy's currency is its castle

The result of the UK's referendum on membership of the EU was a shock to at least 48% of voters, and likely a much greater proportion of domestic residents and overseas investors. And yet, the post-referendum price action was not only contained, but £-IG credit spreads snapped tighter in response to the Bank of England's policy response, specifically the CBPS. If the "Leave" vote placed a powder keg of uncertainty under the economy, then the tale appears to have climaxed in a Guy Fawkes-esque damp squib, thus far.

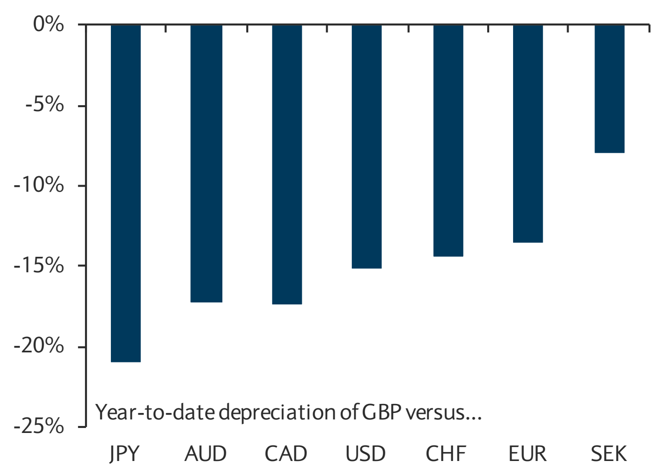
The two key shock absorbers for the UK economy and sterling financial assets have been the Bank of England and currency devaluation. The rapid selection of a new prime minister, without elections and the new government's focus on constructing a legal and practical framework for exiting the EU prior to triggering Article 50 has also helped. But depreciation of GBP was the key pacifier of the initial adjustments (Figure 3), in our view. Indeed, the FTSE100 touched its high after the referendum as the positive translational effects on the earnings of international companies that report in GBP came into focus (Figure 4). Notably, domestically focused companies (proxied by the FTSE250) have fared much less well.

Credit has been less responsive to the on-paper benefits of FX depreciation, due to a less favourable sector mix. The FTSE100 is dominated by commodity producers and banks. In contrast, only 55% £-IG index are UK-based (ie, predominantly report in sterling) but, once we remove the Financials and Utilities, only 19% of the £-IG universe consists of issuers that might gain an exporting advantage from the move lower in GBP. Furthermore, credit investors tend to be more sanguine about one-off earnings driven by FX movements, as these are not repeatable and the near-term benefit is often obscured by hedging activities.

This is not to suggest that there will be no lasting effect from the UK's vote. The journey towards leaving the EU has only just begun but in general, our pre-referendum views, that UK banks would not be operationally stressed by a vote to leave the EU and that the risk to UK focused credits rested on a potential economic slowdown, have held up well. Looking further afield, it is hard to believe that the UK's vote did not have some inspirational effect on anti-establishment voters in the US. Also underestimated, in our view, was the effect of the UK referendum on global bond yields. Gilt yields collapsed to record lows in response to the BoE's new gilt purchase activity, where the MPC raised the APF's target by £60bn and added a new Corporate Bond Purchase Scheme (CBPS) to its policy toolkit.

FIGURE 3

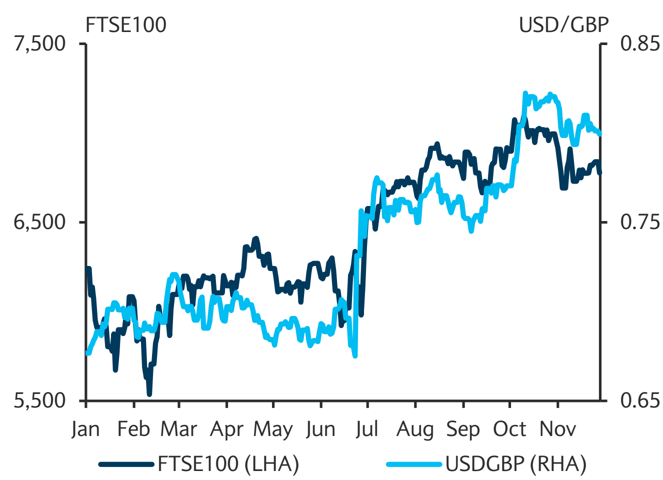
GBP has operated as a shock absorber post-referendum



Source: Barclays Research

FIGURE 4

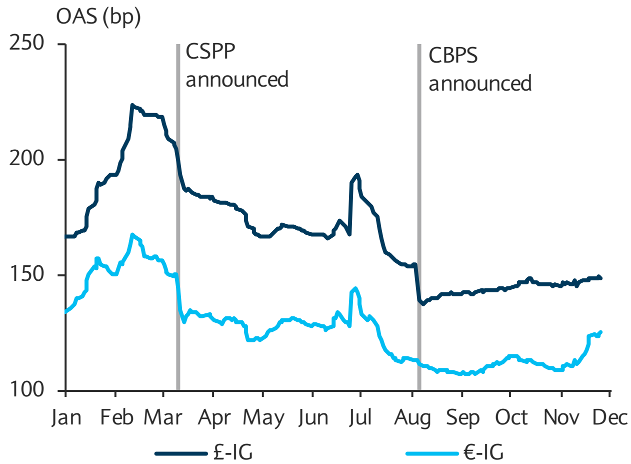
UK equity indices, in particular, benefited from the FX move



Source: Barclays Research

FIGURE 5

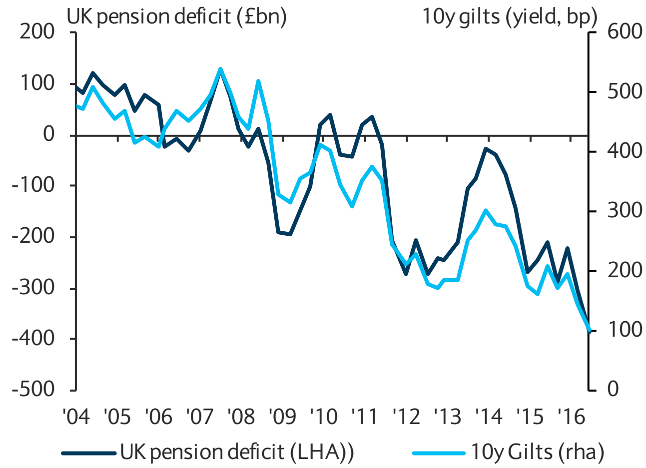
£-IG spreads troughed after the CBPS was announced



Source: Barclays Research

FIGURE 6

Gilt yields fell further, creating pain for pension schemes



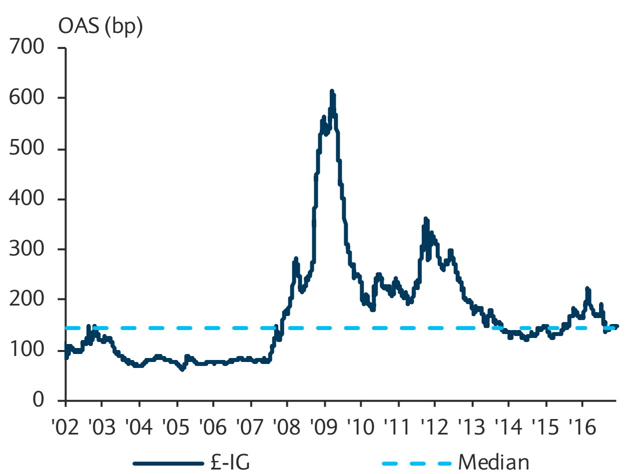
Source: Pension Protection Fund, Barclays Research

The collapse in real and nominal gilt yields resulted in greater focus on the negative effect of loose monetary policy on insurance companies and pension funds (Figure 6). This, in our view, was the proximate trigger for the global reassessment of zero/negative rate policies at the end of Q3. As in €-IG, we believe this shift signals that the low in corporate bond yields is behind us for this cycle, though in the sterling market, we are more confident that the heavy lifting will be done by government bond yields and that corporate spreads will widen only modestly in our base case, if at all.

That said, moderately attractive index valuations are about the only positives we can find for £-IG. Spreads which overshot following the CBPS announcement continue to leak wider as they return to more normal valuations. The £-IG index may be the widest trading of the DM credit markets, but that advantage entirely evaporates after accounting for composition effects and the cost of hedging rates and FX (Figure 8). Weighed against valuations are all the political risks of triggering Article 50 next year, and our expectation that CBPS will end in Q1 2017. To these headwinds we add our weak total returns forecast (+0.5% in 2017); there is a material risk that poor returns trigger retail fund outflows at the beginning of 2017, pushing spreads wider before institutional investors can pick up the slack, in response to higher yields.

FIGURE 7

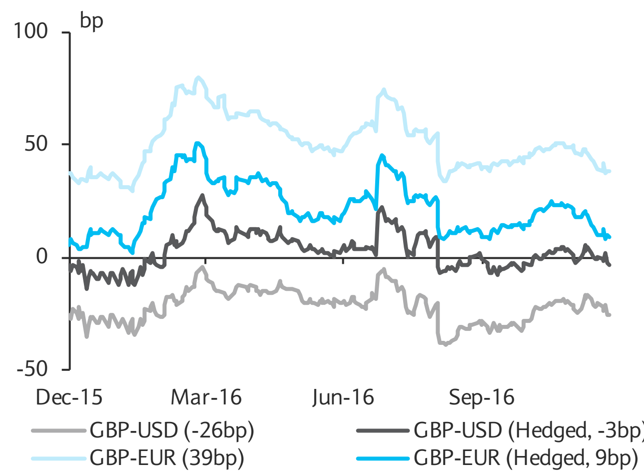
£-IG spreads are not expensive in a long-term context…



Source: Barclays Research

FIGURE 8

…but they are not cheap either, on a fully adjusted basis



Source: Barclays Research

CBPS: Here today, gone in March?

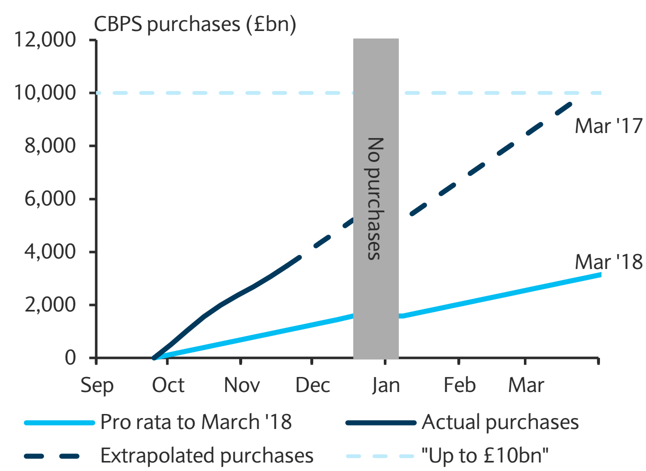
The Bank of England's CBPS was an unexpected development this year, even more so than the CSPP. Indeed, the programme has confounded market participants throughout. The choice of in-scope bonds raised several eyebrows and was later materially changed via the inclusion of many secured bonds and housing association debt. Further, the pace of CBPS purchases has been far in excess of the £132mn per week implied by the announced target of 'up to £10bn over 18 months' (Figure 9). Despite this, the post-announcement tights were the nadir in credit spreads and the market has bled wider ever since.

Based on the current average pace of activity (£434mn per week over the first eight weeks), we believe that the CBPS is likely to complete its current purchase mandate of £10bn by the end of March 2017, significantly ahead of the 'final legal maturity' for the CBPS of March 2018. From a monetary policy perspective, aligning the *de facto* endpoint asset purchases (both gilt and corporate bond) makes sense to us: the idea that the BoE might end the majority of its asset purchases in March 2017 but maintain a residual stream of corporate bond buying for an additional year seems excessively finicky. A single time horizon for both asset purchase programs is a more coherent policy framework, in our view.

Our expectation that the BoE will co-ordinate the gilt and corporate bond purchases also colours our view on the potential for an expansion of the CBPS beyond £10bn. Based on what the BoE has written, along with comments from the MPC, we believe that the CBPS has surprised the Bank of England positively. Following the announcement, primary market volumes shot higher (Figure 10), credit spreads tightened, and there is anecdotal evidence of increased trading activity (and, hence, liquidity) in £-IG secondary markets as investors were forced to reassess the market outlook and reposition their portfolios in response to the CBPS. For these reasons, we believe that the CBPS is firmly established as a tool of monetary policy that can be re-visited if the MPC determines that further monetary accommodation is warranted. Put simply, we do not believe that the MPC would undertake ad hoc or small increases to the CBPS mandate in a whimsical fashion: expansion of the programme would come as part of a coherent package of policy easing, in response to a clear macroeconomic development, such as falling inflation, slowing growth or a shock to financial conditions. With our economists not expecting such a package in March, in light of their forecasts for rising inflation and a shallow-but-drawn-out slowdown in the UKs economic activity, neither they, nor we, expect the CBPS to be increased in the baseline.

FIGURE 9

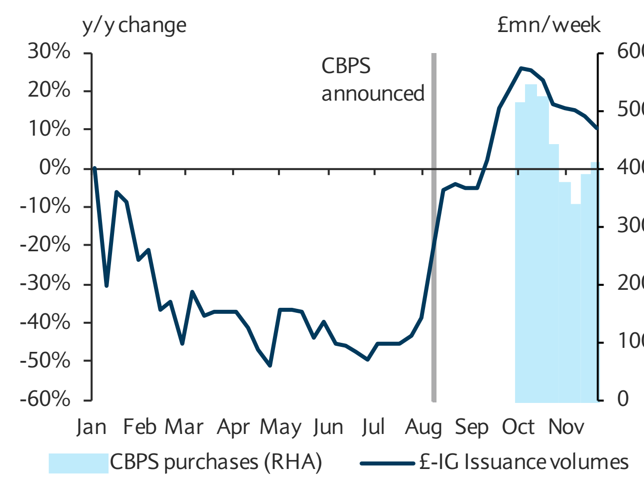
CBPS is more likely to end in 2017 than 2018



Source: BoE, Barclays Research

FIGURE 10

The BoE triggered a flurry of issuance activity in £-IG



Source: Dealogic, BoE, Barclays Research

Supply and demand as important as ever

With the CBPS likely to complete its purchases early in 2017, the outlook for supply and demand will retain a prominent position in the minds of investors and we expect these to present a headwind for spreads early in 2017. With Q4 '16 total returns likely to be deeply negative (-4.75% QTD) and equities holding up well (-0.85% QTD), any seasonal inflows to bond funds due to the approaching end of the tax year are likely to be weaker than usual. Indeed, asset managers are likely to be sensitive to *outflows* from the asset class in Q1.

As outlined in our 2017 demand outlook (*The €100bn question*, 11 November 2016), rising yields will eventually support demand from insurance companies in H2 '17. We should also see the lagged effect of top-up payments from sponsors into pension funds, where asset allocation is likely to be focused on ALM-driven investment to the benefit of corporate bonds. This should be reinforced by the strong performance of the FTSE100: rising equity valuations portend net purchases of fixed income from pension funds, as they rebalance their portfolios, again with a lag (*Demand side economics*, 12 August 2011). However, this demand is more unlikely to appear before H2, suggesting that there will be a strong ebb and flow in demand over the year as a whole, which is likely to result in spread volatility.

On the supply side, we have a modest forecast for 2017, reflecting our longstanding view that the £-IG market is demand driven. We have pencilled in a material (+£7.5bn) increase in gross supply, but net supply should be similar to this year, due to increased redemptions. Hence, the supply side of the market is less of a concern to us in £-IG next year relative to the demand side of the equation and unlike in €-IG, where oversupply is a material risk.

FIGURE 11

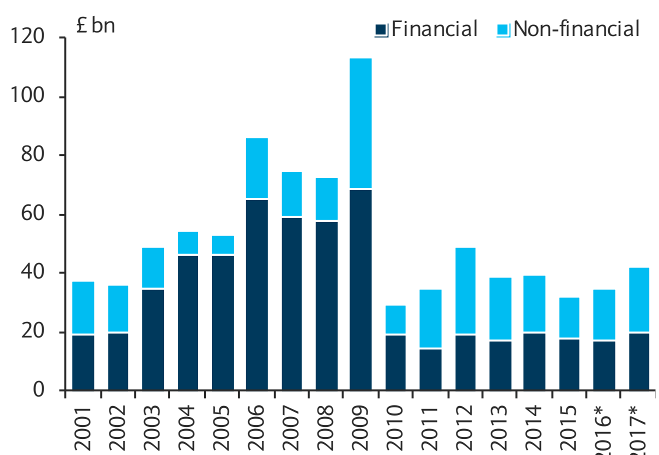
Barclays 2017 pan-European IG corporate issuance forecasts

		2017 (est)			2016 (est)		y/y
		Gross	Redemp.	Net	Gross	Net	Gross (%)
EUR (€bn)	Fin	255	280	-25	240	0	6%
	Non-Fin	310	140	170	280	150	11%
GBP (£bn)	Fin	20.0	25.0	-5.0	17.5	-5.0	14%
	Non-Fin	22.5	15.0	7.5	17.5	7.5	29%

Note: Gross issuance forecasts are Barclays Research, redemptions are from Dealogic. €bn amounts rounded to the nearest €5bn, £bn amounts rounded to the nearest £2.5bn. Source: Dealogic, Barclays Research

FIGURE 12

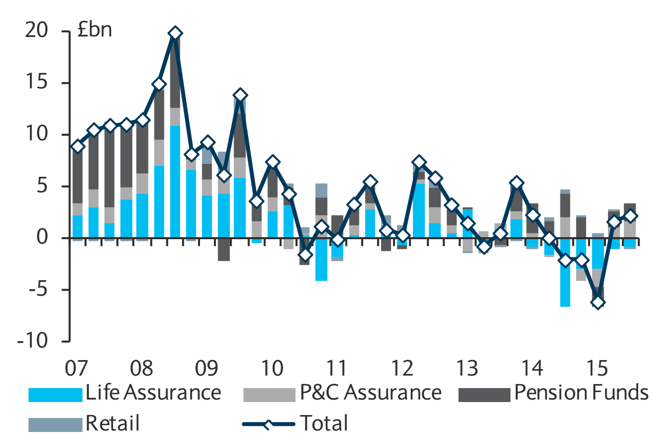
Annual £-IG gross issuance, with Barclays forecasts



Source: Dealogic, Barclays Research

FIGURE 13

Net purchases of £-IG by investor type



Source: ONS, IMA, Barclays Research

Votes, votes, votes, confusion and votes

While there are no current plans for general elections or another referendum in the UK next year, there are likely to be closely scrutinized votes, along with the tail-risk of snap elections. A final ruling from the UK's Supreme Court is not expected until January 2017, but as it stands, the triggering of Article 50 must be presaged by a parliamentary vote. This would, no doubt, be carefully scrutinized: in particular the likely voting behaviour of MPs, many of whom were in favour of remaining in the European Union, but who represent constituencies that voted overwhelmingly to leave in the referendum.

A parliamentary vote to trigger Article 50 would raise the least additional complexity in our view, while a vote rejecting Article 50 could precipitate a crisis of governance or even snap elections (subject to the constraints of the Fixed-Terms Parliament Act). Indeed, if the government was not confident that it would be able to pass the required bill in Parliament, it could opt instead to call new elections ahead of the vote, in order to seek a 'mandate'. The reaction of sterling assets to snap-elections in 2017 would likely be volatile, given the conflicting impulses of increased uncertainly over the process and a greater probability that the UK would remain in the EU. In that scenario, £-IG investors would be forced to pay close attention to the probability of pro-trigger parties being able to win a majority.

Indeed, any result other than a clean, timely trigger of Article 50 is likely to open a Pandora's Box of constitutional questions, not only with regard to the UK's representative democracy, but also the relationship between Westminster and the devolved governments in Scotland, Wales and Northern Ireland. Given that, as noted in *The Politics of Rage* (23 October 2016), perceptions of a democratic deficit are a key driver of anti-establishment voting, there is a high risk that the UK electorate would seek to punish a perceived attempt to subvert the substantive result of the referendum by favouring even more anti-establishment parties.

The reaction of £-IG to these events, as we have seen multiple times in recent years, is an oxymoronic mixture of paralysis and chaos as credit spreads weaken and remain volatile, but are supported by the closure of primary markets and the home-market bias of UK asset managers, who are unlikely to be forced sellers. Indeed, market turbulence resulting from these events could be sufficient to trigger an expansion of the CBPS, which would be a short-term positive for £-IG spreads. Longer term, however, we would view political noise of this nature as a negative for perceptions of £-IG, overseas participation in the market, and hence the integrity of the sterling corporate bond market. A new set of unquantifiable risks would be a blow for the market, which has not clearly regained its feet.

EUROPEAN HIGH YIELD STRATEGY

Navigating crosswinds in a low return world

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- **Growth should remain sufficient in 2017 for Pan-European high yield companies to keep their fundamentals intact. However, technicals will be neutral at best, with numerous political hurdles and potential ECB tapering. This is likely to lead to higher risk-free rates and slightly wider credit spreads to compensate for the increased volatility.**

- **We forecast 2017 excess returns of 2-3% for Pan-European high yield in our baseline scenario. Taking into account our expectation of moderately rising rates, we expect total returns of 1-2%.**

- **High yield spreads are 20bp wider by year-end 2017 in our baseline scenario. We forecast a year-end OAS of 430-450bp for the Bloomberg Barclays Pan-European HY ex-Financials Index.**

- **BBs should outperform in spread terms, as we expect Bs to reverse some of the good performance that they exhibited in the second half of 2016.**

- **Fundamentals are solid, albeit slightly weaker than in the previous year. The rating quality of the index improved over the last decade. Over the past three years, this has been offset by a slight increase of net leverage on the index level. Overall, we see a benign fundamental environment in European high yield, despite the marginal increase in leverage.**

- **We forecast a 1.75-2.75% issuer-weighted default rate for HY bonds in 2017 (1.5-2.5% par weighted), approximately in line with the current rate. Limited short-term maturities and a low share of stressed issuers make a short-term increase in European defaults unlikely.**

- **Sector performance in 2016 was supported by a recovery of commodity prices, resulting in Basic Industry and Energy as best performers. Less spread dispersion as we start in 2017 will keep sector selection on the priority list. Our key Overweights are Communications and Debt Collectors. We are Underweight on Automotive, Leisure, and Supermarkets.**

- **We expect slightly higher gross bond issuance in the European high yield market in 2017. European currency denominated volumes from non-financials corporates should be €60-70bn, up 5-10% over the year. By currency, we expect €55-60bn in euro and €5-10bn equivalent in sterling. We foresee positive net issuance that will lead to continued non-financial index size growth at low levels.**

- **After three years of inflows, 2016 was the first year to have net outflows, caused by mutual funds. With lower returns expected for 2017, we foresee slightly lower demand for the asset class from actively managed high yield mutual funds, and similar to 2016, other sources of demand will need to develop.**

- **We expect iTraxx Crossover to be only 5bp wider at year-end 2017, compared with the high yield cash index widening of 20bp. One reason is a more normalized skew that moves back towards negative from the current positive level. Additionally, a marginally higher CDS-cash basis should balance out some of the implied widening derived from the historical relationship between the HY cash index and Crossover.**

More alpha with less beta in 2017

We expect 2017 to be a year in which high yield is in a tug of war between tailwinds (low eurozone growth, but positive influence from the US, as well as solid fundamentals) and headwinds (macro and political issues in the eurozone, central bank and rates concerns).

We expect Pan-European high yield spreads to widen 20bp during 2017, resulting in total returns of only 1-2%. In our view, the still fragile economic growth and continuing issues in the eurozone, as well as the effects of Brexit and the US vote will start to become real instead of hypothetical. Growth in the US will not benefit European companies if transatlantic trade becomes more difficult. Additionally, a cycle of decreasing rates is ending in a decade when government bonds were a positive contributor to total returns in every year except 2013.

Fundamentally, the asset class is still solid, as near-term maturities have been addressed, defaults are stable at low levels, and companies' net leverage has increased only moderately. Outflows of actively managed mutual funds will be unconstructive.

We are cautious with respect to spread. Investors should not rely on the beta of high yield, but position for several alpha-generating strategies:

- With respect to quality positioning, Bs have outperformed BBs by about 50bp during 2016, and we see this rally coming to an end. We see a reversal of this trend being supported through outflows from actively managed European high yield mutual funds, which are anecdotally overweight Bs vs. BBs.
- We are cautious with respect to country risk. With peripheral credits offering no spread premium and UK-based credits only a minimal spread premium, we recommend an underweight positioning with respect to those regions.
- Sector and individual credit selection will matter because European high yield will likely not generate strong returns based on spread tightening across the asset class.

We have summarized our key expectations and recommendations in Figure 1 and give a rationale for our view, which we explain in detail on the following pages.

FIGURE 1

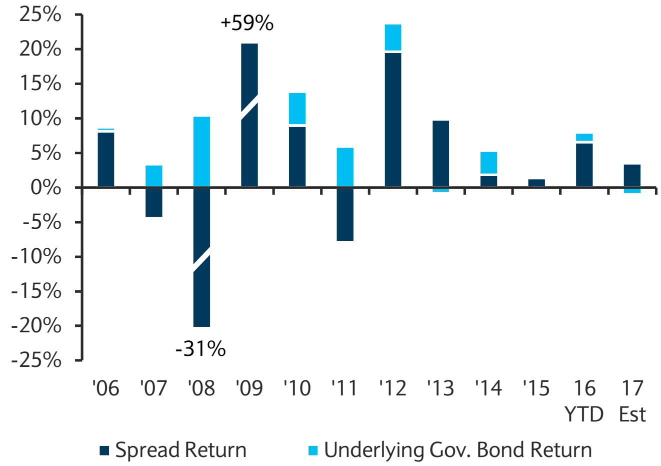
Key themes and forecasts for European high yield in 2017

Segment	Forecast / Positioning	Rationale
Spreads	Moderate spread widening of 20bp	Moderate GDP growth of 1-2% in Europe with modest inflation and slightly higher levels of volatility supported by tailwinds based on high US economic growth and solid fundamentals. Concerns stem from macro and political issues predominately in Europe, as well as the efficacy of central bank policies and rising rates.
Returns	Excess return of 2-3%, total returns of 1-2%	The low starting yield of the index of 4%, combined with moderate spread widening, should lead to excess returns of 2-3%, which will have a slight detraction from rising rates in the eurozone, resulting in total returns of 1-2%.
Fundamentals	Solid, but with slightly higher net leverage, stable defaults	Companies' net leverage has gradually increased over the past three years, but not reached levels that would worry us. Lower-rated maturities have been addressed. 2016 default rates are stable at slightly over 2% and we expect issuer-weighted defaults of 1.75-2.75% in 2017.
Technicals	Moderately weakening technical backdrop	Slightly higher gross new issue supply expected. Funds to have outflows, especially on the mutual fund side, partially offset by anticipated ETF inflows.
Quality positioning	Prefer BBs over Bs	Single B upside limited based on valuations. Price upside in Bs constrained by a high share of callable bonds.
Peripherals	Underweight peripheral credits	Euro High yield peripheral credits currently offer no spread premium compared with non-peripherals. We recommend a cautious stance, as valuations do not provide for a risk premium for potential sources of volatility.
UK credits	Underweight UK credits	On aggregate, the UK premium offered is too low, in particular for BBs. Overweight selected credits only such as AALLN, COGNTA, TTMTIN, and VMED.*

Note: * Our fundamental analysts have Overweight ratings on selected bonds of these issuers only. Source: Barclays Research

FIGURE 2

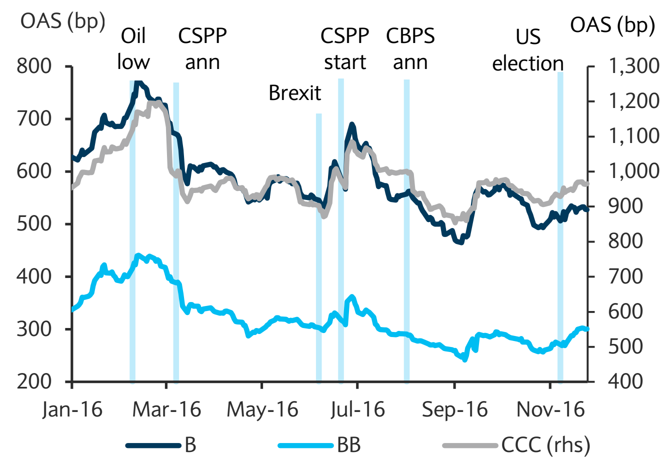
Pan-European high yield annual returns with 2017 forecast



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 3

Pan-European High Yield ex-Financials spread during 2016



Source: Bloomberg Barclays Indices, Barclays Research

2016 recap: A bumpy road ends with decent returns

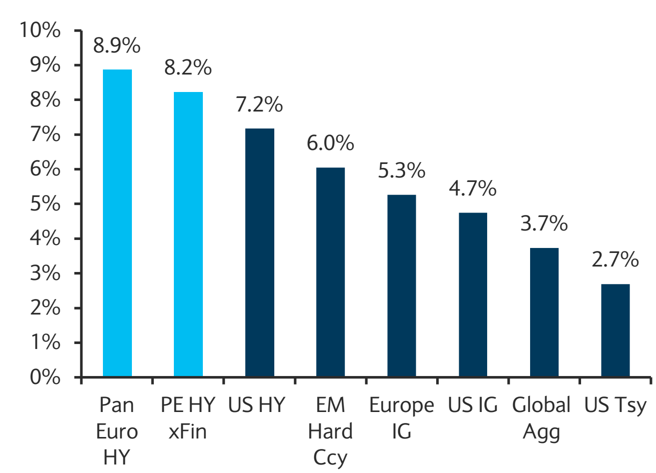
Pan-European high yield is set to finish 2016 with decent total returns of about 8%, with rates contributing around 1.6% to returns (Figure 2). 2016 was a volatile year, affected by several factors: a plummeting oil price resulting in rising spreads and limited supply, the announcement by the ECB in March 2016 to buy credit under the CSPP, the UK referendum outcome in June 2016, and the US election surprise in November (Figure 3).

During 2016, the Pan-European high yield index ex-Financials has tightened about 50bp. Compared with year-end 2015, the index offers 1.1% less yield now. This matters for 2017, as higher starting yields tend to have a positive effect on the following 12-month total returns (Figure 5). The index yield is set to begin 2017 at one of lowest starting points in recent history. As such, valuations no longer suggest material outperformance potential for European high yield.

After the aftermath of the financial crisis since 2010, Pan-European high yield has delivered superior annualized returns of 8.9% (8.2% for ex-Financials), compared with 7.2% for US HY and 6.0% for EM hard currency corporates (Figure 4).

FIGURE 4

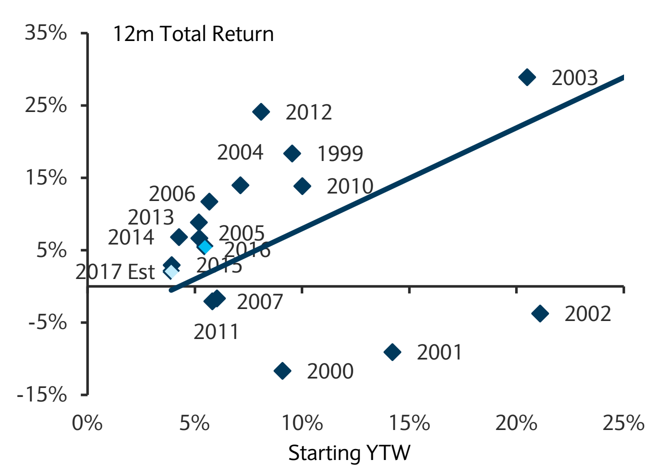
Fixed income asset annualized asset class returns 2010-16



Source: 2016 using YTD. Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 5

Starting yield vs. following 12-month total return



Source: Bloomberg Barclays Indices, Barclays Research

2017 base case: HY stuck between head- and tailwinds

Pan-European high yield high yield will start 2017 in a low growth macro environment with fading central bank support that could lead to a higher focus on fundamental credit quality, in our view. In 2016, high yield credits were able to do well based on cost focus, market consolidation, and margin optimization. The ECB has helped in this environment by suppressing volatility. For 2017, we expect slightly higher volatility.

Overall, we think that high yield companies can do well in a low growth environment as long as they do not excessively favour shareholders over bondholders, a trend that was not seen in 2016. But to have a significant positive effect on high yield companies, more economic growth is needed than the current level of below 2% GDP growth in the eurozone. This would allow for sales expansion and higher earnings and lead to improved credit profiles should companies decide not to increase their leverage.

In addition to the macroeconomic environment, we view Pan-European as an asset class with solid fundamentals and moderately weakening technicals that provide support, but do not lead to any outperformance. In our view, the positive and negative drivers mentioned below will lead to slightly higher spreads in Pan-European high yield, as the combination of the low growth environment and the macroeconomic issues will not be able to create a low volatility backdrop in 2017 that would be needed to justify a lower risk premium for high yield issuers. As such, we expect spreads to widen 20bp in our base case (Figure 6 and Figure 8).

Macroeconomic backdrop for our outlook

Our 2017 high yield return outlook is based partly on the macroeconomic assumptions published in *Economic Outlook: Political change brings policy change*, 17 November 2016. For our baseline scenario, our economists forecast GDP growth in the eurozone (1.6% y/y by Q4 17), inflation (CPI at 1.2% y/y by Q4 17) and slightly higher inflation expectations.

This main scenario assumes moderate growth at low levels in Europe, with modest inflation that is slightly higher over the year. Lending conditions are assumed to be loose but moderately tighter, assuming that the ECB is continuing the QE program with a potential easing during 2017.

In our view, volatility will be slightly higher than in 2016. On the one hand, continued central bank policy is expected to suppress excess volatility, as happened during 2016 after major political events such as the Brexit. Additionally, increased GDP growth in the US should be positive for European corporates on the margin. On the other hand, we expect some macro headwinds such as the upcoming European elections, a potential increase in global trade restrictions, and some consequences of the Brexit once implementation starts. Additionally, emerging market and geopolitical risks are sources of volatility that could influence European high yield indirectly through global investor sentiment.

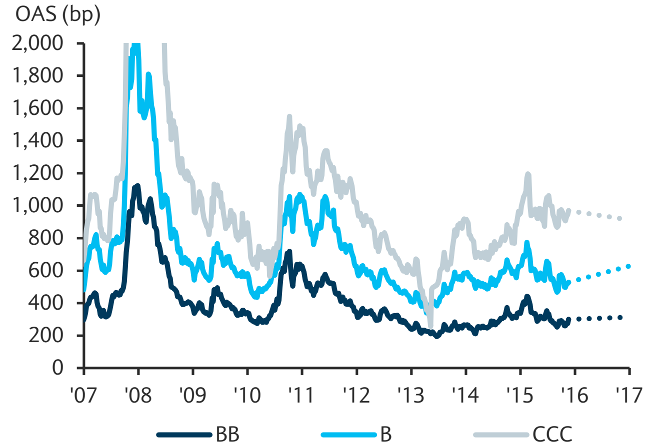
FIGURE 6

Pan-European high yield to widen moderately in 2017

We use the Pan-European High Yield ex-Financials index for our forecasts.
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 7

Spread trajectory by rating quality for BBs, Bs, and CCCs



Source: Bloomberg Barclays Indices, Barclays Research

We provide an overview of our headline macro assumptions in Figure 8.

We see the following crosswinds affecting Pan-European high yield in 2017:

Tailwind: US economic growth

On the positive side, growth will likely be supported by a fiscal stimulus in the US that increases corporate earnings in the US. The effect of higher US growth on European high yield is indirect, but should support the asset class. First, US credits with debt in the Pan-European high yield index account for 7% of the amount outstanding. The number is low, but good US high yield performance should be a slight contributor to the European side. Second, European and US high yield have a high correlation of monthly total returns with an R-squared of more than 0.8, as highlighted in *European Credit Focus: A global perspective on high yield*, 13 May 2016. This means that positive and negative events in the US tend to have comparable effects in Europe. This effect occurred in 2016 when US HY sold off based on lower commodity prices and European high yield followed the spread widening, although the energy exposure on the European side amounts to only 1% by market value. In our view, higher growth in the US would be positive for European high yield on the margin.

FIGURE 8

2017 baseline and alternate scenarios with macro indicators and spread forecasts

Scenario Description				
	Current	Baseline	Upside	Downside
GDP (%, y/y)	1.6	1.6	2.0	0.5
CPI (%,y/y)	0.5	1.2	1.5	0.5
Volatility	21 (V2X)	Slightly higher	Slightly lower	Higher
Lending Standards (%)	0	Slightly tighter	Unchanged (zero)	Tighter
Inflation Expectations	0.9	Slightly higher	Higher	Lower
OAS (bp) at year end 2017	420	430-450	360-380	590-610

Note: Spread Forecast for Bloomberg Barclays Pan-European High Yield ex-Financials index.
Source: Bloomberg, ECB, Barclays Research

Tailwind: Solid fundamental backdrop

Additionally, we see the fundamental environment of European high yield as a positive factor. Companies' net leverage has gradually increased over the past three years, but not reached levels that would worry us. Larger sectors such as Automotive, Basic Industry, and Capital Goods supported a deleveraging of the index, while smaller sectors such as Retail, Healthcare, and Debt Collectors re-leveraged, due mainly to weak industry trends or in-sector consolidation.

Defaults have not increased in European high yield and are expected to remain stable at low levels, with an expected issuer weighted default rate of 1.75-2.75%. Lower-rated maturities of companies have been addressed. Overall, we see a benign fundamental environment in European high yield, despite the marginal increase in leverage.

Crosswind: Moderately weakening technicals due to mutual fund outflows

Technicals are moderately weakening. Supply was low in 2016 due to several months of increased volatility with muted issuance. For 2017, we expect a slight increase in gross bond new issuance.

This picture will be slightly clouded by the demand side. There was a trend of outflows from mutual funds and inflows into ETFs during 2016. Combining mutual funds and ETFs, there were net outflows for the asset class, but at low levels in 2016. We expect this trend to continue into 2017, as the low overall return expectations should translate into pressure for active managers, with investor money at the margin being channelled to ETFs.

Headwind: Political landscape in Europe

On the negative side, we see several macro and political issues in the eurozone that have the potential to affect European high yield. In 2017, with elections upcoming in the core countries France and Germany, there is a risk of increasing populism that undermines any proactive solution to structural issues. The low economic growth environment will put pressure on households' disposable income that should dampen the soaring consumption of recent quarters, as discussed in *Global Outlook: Turning point*, 17 November 2016. On top of that, there are still several issues in the peripherals that have not been solved. Italy's banking system remains fragile and negative news flow could weaken financials and high yield companies, as tougher funding conditions would hurt peripheral companies even if they are financed through the bond market. Last, the fallout from Brexit has not hit the market yet. The Trump presidency could also affect Brexit, even though the US president-elect has yet to deliver a workable doctrine with respect to his approach to Europe in general and to the UK in particular.

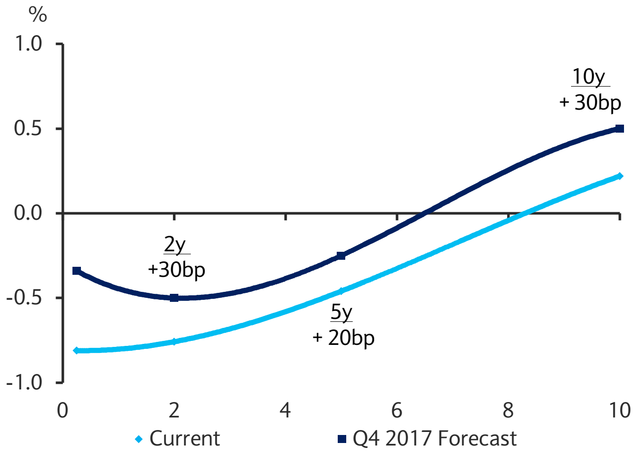
Headwind: Monetary policy and rising rates

Also, we expect the ECB to have a tougher time surprising markets in a positive way. With euro area inflation set to remain subdued and risks for the euro area as a whole still skewed to the downside, the ECB is widely expected to extend its QE program beyond March 2017. However, criticism of its negative interest rate policy and asset purchases has been growing, particularly in Germany and other northern European countries. We expect the ECB to postpone any potential tapering of asset purchases until March 2017. The recent rise in US yields and the related dollar strength should in principle facilitate the ECB's challenge. Any perceived uncertainty from the ECB's announcement could spell trouble for market sentiment and, as such, drive high yield spreads wider.

Rising rates in the US could be another source of volatility. As highlighted in *Global Outlook: Turning point*, 17 November 2016, our economists' baseline forecast remains two rate hikes in each of 2017 and 2018, following the one we expect in December 2016. Any rate hikes in the US will likely affect European bond market, as occurred in November 2016, when credit showed signs of a sell-off related to concerns about higher rates, although the effect on European rates was much lower than on the US side at the end of 2016.

FIGURE 9

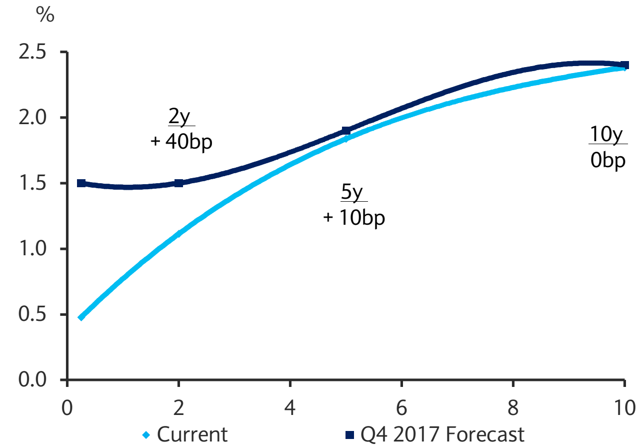
European rates: Current and Q4 17 forecast



Source: Bloomberg, Barclays Research

FIGURE 10

US rates: Current and Q4 17 forecast



Source: Bloomberg, Barclays Research

Total return expectations limited due to rates trajectory

To transform our spread forecast into total returns, we examine the contribution from three other sources: carry (in the absence of price moves), defaults (to estimate credit losses), and rates (used along with spreads to determine aggregate price change).

In our baseline scenario, the index return in 2017 will come mostly from carry, with rates and defaults being slight detractors.

As a starting point, we use the current index yield of 4.0% for the Pan-European High Yield ex-Financials Index, which is 1.1% lower than at year-end 2015. We then subtract 100bp for credit losses by taking the midpoint of our 1.5-2.5% par-weighted default forecast and a blended recovery rate of 40% applied to the average CCC price (see the ensuing section on fundamentals for details behind our default outlook). Our modest spread widening forecast of 20bp translates into 70bp of index price deterioration, using the index duration. Summing these factors results in an excess returns forecast of 2-3% in 2017 (Figure 11).

For 2017, we expect government rates to detract from total returns performance, as the Bund curve is moving slightly higher, resulting in fewer maturities at negative yields by the end of 2017 (Figure 9). For US Treasuries (Figure 10), we expect short rates to increase even more than in Europe, as we are set for several Fed hikes until the end of 2017, as detailed in *Interest Rates Outlook: Brave new world*, 11 November 2016. Using our rates outlook and taking into account the index duration, we arrive at a total return forecast of 1-2% in our baseline scenario (Figure 11).

FIGURE 11

2017 excess and total return forecast

Excess and Total Return Decomposition			
	Baseline	Upside	Downside
Starting Yield (%)	4.0	4.0	4.0
Default Losses (%)	-1.0	-0.7	-2.4
Index Price Change (points)	-0.7	1.9	-6.7
Excess Return Forecast (%)	2-3	5-6	(-5.5)-(-4.5)
Total Return Forecast (%)	1-2	3.5-4.5	(-5)-(-4)
OAS (bp) at year end 2017	430-450	360-380	590-610

Note: Spread forecast for Bloomberg Barclays Pan-European High Yield ex-Financials index. Source: Barclays Research

Alternative scenarios: Potentially more up- and downside

The upside scenario: Positive news from growth and ECB tailwinds lead to tighter spreads

While the somewhat uninspiring macroeconomic growth forecast in our baseline scenario would likely prove insufficient to drive Pan-European HY spreads tighter, a more dovish ECB and the real economy showing signs of improvements could plausibly increase GDP growth to 2% and drive inflation to 1.5%. In that case, we would foresee lower volatility and expect the eurozone to master some of the upcoming challenges such as the Brexit negotiations, Italian banking issues, and populist parties in upcoming elections.

In our upside scenario, there is not fundamental credit deterioration, however. We expect the central bank stimulus to work and translate into higher growth and inflation. Credit fundamentals would deteriorate with increased M&A and higher leverage in a second stage, which we would not yet foresee for 2017.

In this scenario, investors would find some good value in the Pan-European high yield market, allowing for decent returns slightly below the previous year. If all these conditions arise, we expect spreads to tighten 70bp and forecast excess returns of 5-6%. In this scenario, rates would be even a stronger detractor than in our base case, due to higher inflation expectations. We estimate total returns of 3.5-4.5% for our upside scenario.

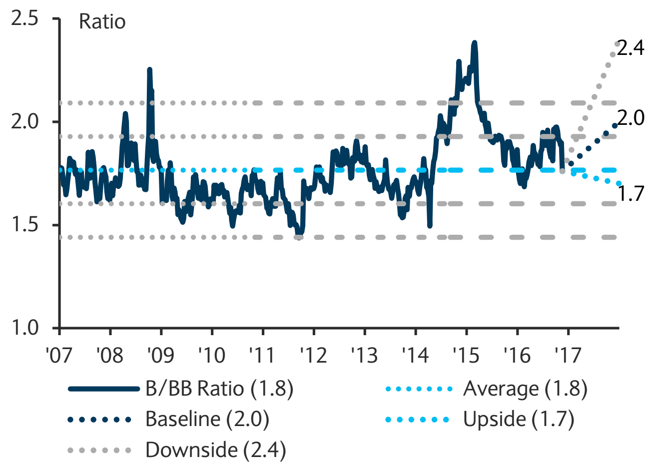
The downside scenario: Eurozone stress leads to a sell-off in credit

While an upside scenario has become plausible, a downside scenario that involves lower realized growth and inflation cannot be ruled out. Our downside scenario is constructed on increasing stability concerns in the eurozone. With several elections on the calendar and concerns about the Italian banking system, several issues on the agenda could spark rising investor concerns or, even worse, destabilization of the eurozone. The ECB would likely intensify its efforts to suppress volatility, but we would expect this to be less successful, as central bank credibility would be lower due to worries about the sustainability of the current political system in the eurozone.

To model such an outcome, we use a downside scenario involving 0.5% GDP growth, low inflation of 0.5%, slightly lower inflation expectations, and higher volatility. Support for the overall high yield index would be the continued sponsorship of BB rated fallen angels and national champions, which we believe would widen only moderately, as they are owned by an investment grade buyer base to a certain extent. In that case, we foresee a spread decompression between higher- and lower-rated credit, resulting in stronger spread underperformance for B and CCC rated credit. We would expect credit losses from defaults to increase as higher spreads put pressure on the lower-rated companies. While the ECB can provide liquidity and the CSPP support mainly to investment grade issuers, lower-rated credit is unlikely to benefit in a downside base from the central bank support. For the downside scenario, we believe that a spread widening of 180bp or more would result in negative excess returns of -5.5% to -4.5%. Lower rates would be a positive contributor in the downside scenario, resulting in total returns of -5% to -4%.

FIGURE 12

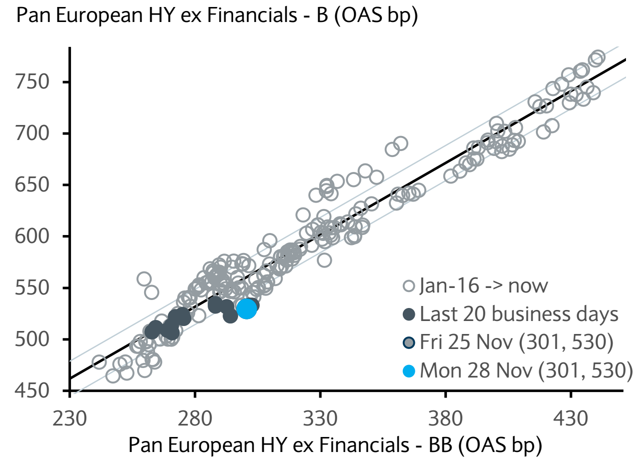
B/BB spread ratio with forecast



Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 13

Bs are more than one standard deviation tight vs. BBs



Using a YTD regression since January 2016. Source: Barclays Research

Prepare for a lacklustre year as spreads move higher: Three key trading themes

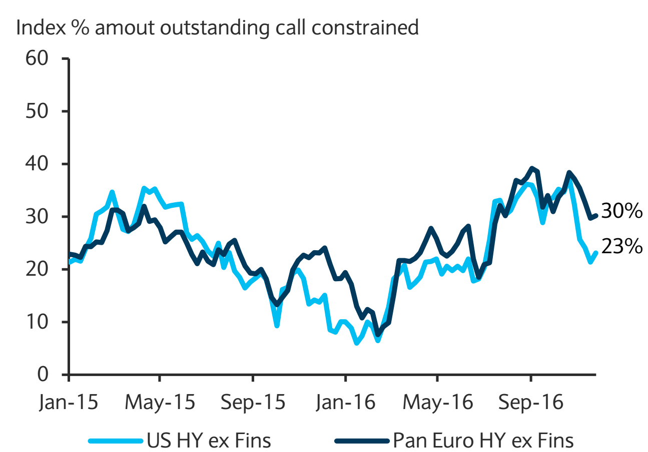
Quality: Prefer BBs based on valuation and price upside in callable bonds

For the different qualities in the high yield index, we see somewhat limited upside for B rated high yield in Europe and would prefer to position in BBs. Especially in the second half of 2016, investors have bought B rated credits in a search for higher yielding and, thus, less rates-exposed assets. This resulted in Bs being extremely tight compared with BBs. Using a regression over 2016, we find that Bs are more one standard deviation tight compared with BBs (Figure 13).

Rising rate concerns towards the end of 2016 already led to increased yields across the quality spectrum when global yields sold off, especially in the US. BB yields adjusted the most, with only a marginal effect on Bs (Figure 15). After the US election results in November, investor expectations adjusted and assumed higher growth in the US, which translated into rising rates on the other side of the Atlantic. Although the effect was much less pronounced in Europe, BB credits have taken the largest price effect. Going into 2017, we are less worried about the additional effect on rising rates, as it is already priced in, in our view.

FIGURE 14

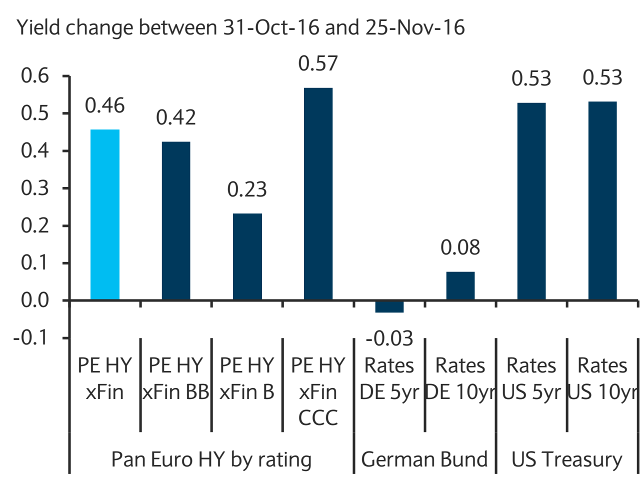
30% of the index is call constrained



Note: We define call constrained as bonds trading above their next call price.
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 15

With the exception of Bs, yield moves are largely priced in



Yield change shown over November 2016, when US rates spiked.
Source: Bloomberg, Barclays Research

There was increased investor demand for short-term high yield assets and a chasing of single B credits in 2016. In our view, the price upside in many Bs is limited, as many bonds trade above their next call prices (Figure 14). We think that the high call-constrained share and the price adjustments that have taken place in the second half of 2016 make Bs less attractive in 2017. Should the trend of outflows from mutual funds and inflows for ETFs continue, we see some reversal of the chase for yield in short-term Bs, as ETFs tend to buy the benchmark using an index replication approach.

We foresee higher total returns for BBs. We also see high returns for CCCs, with the caveat that the tiny segment of the European market that accounts for about 6% of the Pan-European high yield market will be subject to highly idiosyncratic credit stories, as this segment comprises several distressed credits.

Countries: Avoid peripherals and UK credits with no risk premium

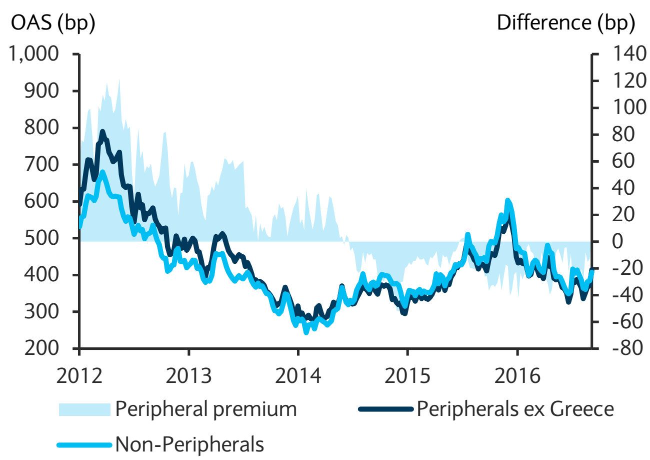
Country allocation in high yield will matter in 2017, in our view. High yield peripheral credits currently offer no spread premium compared with non-peripherals (Figure 16). Thus, we recommend a cautious stance, as valuations do not provide for a risk premium for potential sources of volatility, such as the Italian banking system. Even in the case of muted volatility, we do not see peripheral bonds tightening further, which could lead to underperformance vs. non-peripherals.

Spreads of UK credits increased compared with non-UK credits from virtually zero at the beginning of 2016 to over 120bp shortly after the Brexit vote in June 2016 (Figure 17). This "UK premium" has nearly disappeared as of now on better-than-expected economic numbers from the UK. Additionally, investor expectations that the new US administration might give additional leverage to the UK government during Brexit negotiations could be a positive for UK-based companies. UK risk should be added selectively in credits that benefit from the sterling currency devaluation. We recommend demanding a compensation for potential headwinds and spread volatility associated with UK companies. Therefore we see limited outperformance potential compared with non-UK credits in the index.

For UK-based companies, we recommend focusing on selected bonds with overweight ratings from our fundamental analysts from credits with good spread compensation and positive industry trends such as Anglo American (AALLN), Cognita (COGNTA), Jaguar Land Rover (TTMTIN), and Virgin Media (VMED).

FIGURE 16

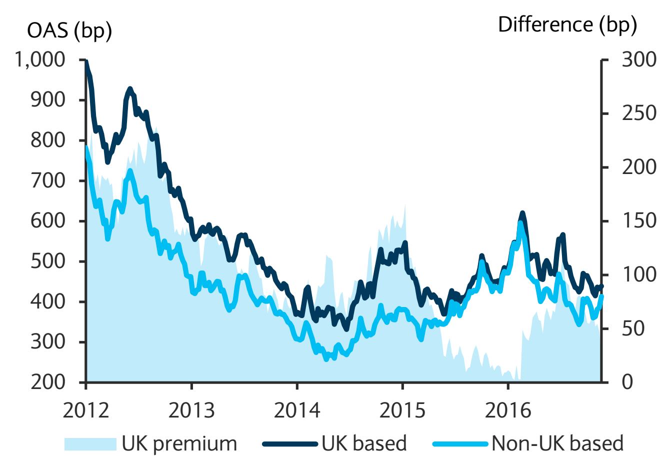
Peripheral HY bonds currently offer no spread premium



Using the EUR currency HY index ex-Financials. Peripherals are ES, PT, IE, IT
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 17

The spread premium for UK-based companies has declined



Using the Pan-European HY ex-Financials index.
Source: Bloomberg Barclays Indices, Barclays Research

Sectors

For 2017, we expect large sectors to be key to supporting the spread level of the index. In particular, the Automotive sector offers less spread than its rating, liquidity, and duration would imply. As such, it has potential to underperform in spread terms. Two of the largest sectors have exhibited good risk-adjusted characteristics, with lower volatility for the spread offered than other sectors: Communications and Capital Goods, which account for 31% of the index market value combined. Both are dependent on the overall growth of the economy, with Capital Goods in particular exposed, as it consists of several cyclical sub-sectors such as Building Materials and Construction Machinery.

The YTD and two-year trading ranges in Figure 19 show Basic Industry, Consumer Non-Cyclical, Utilities, and REITS as sectors that currently trade at the tight end of their ranges.

As credit selection will matter in 2017, we highlight our sector recommendation for sectors covered by our fundamental credit analysts in Figure 18.

FIGURE 18

Sector ratings for sectors covered by our fundamental analysts

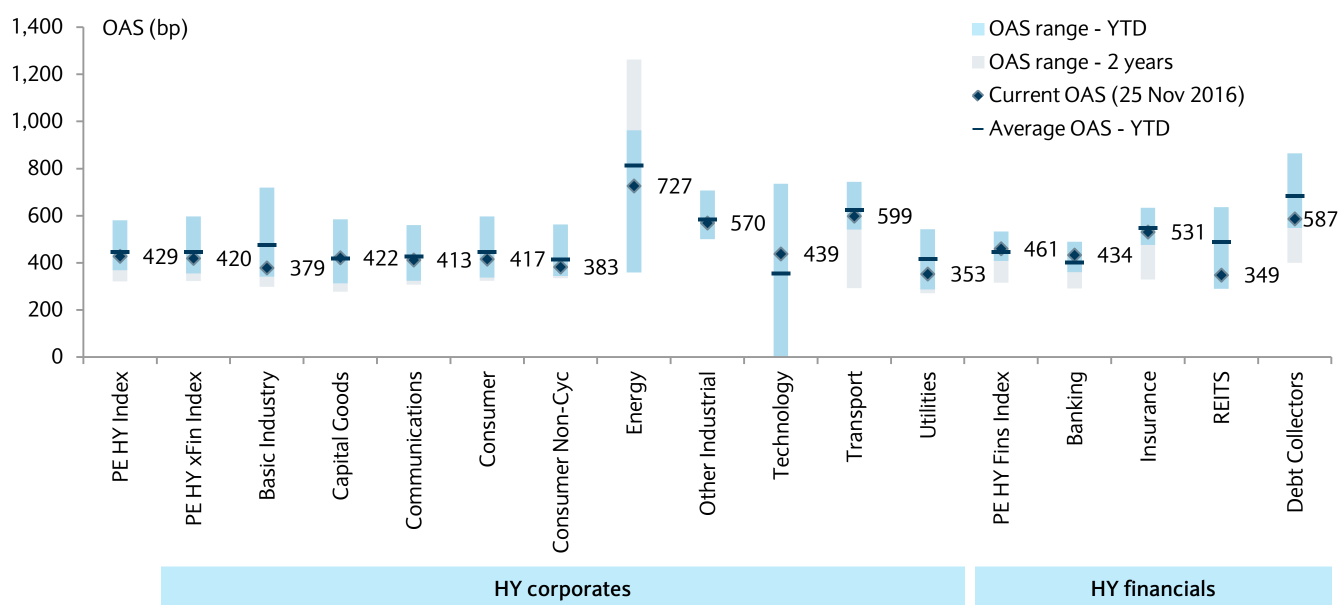
Rating	Sector
Overweight	Communications, Debt Collectors
Market weight	Basic Industry, Capital Goods, Food & Beverage, Gaming, Other Industrial, Retailers, Transportation
Underweight	Automotive, Leisure, Supermarkets

Source: Barclays Research

Individual sector trends and drivers are described by our fundamental analysts in the following fundamentals section.

FIGURE 19

Pan-European high yield sectors with 1- and 2-year spread ranges



Note: Lows showing as zero are caused by call constrained bonds in smaller sectors as index data uses bid prices. Source: Bloomberg Barclays Indices, Barclays Research

A closer look: Fundamentals and sector trends

Rating quality improved over 10 years and is stable over 5 years

The average quality rating of the market-weighted benchmark index has improved over the past decade (Figure 20). Partly, this can be explained by several large fallen angels' capital structures that transitioned from investment grade into high yield and therefore increased the BB rating share of the index (for more detail, see *European Credit Focus: Sectors levered up and down*, 16 September 2016).

In the past five years, rating quality has been largely stable. It has been supported by large sectors such as Communications and Basic Industry, while Transportation and Capital Goods have experienced a deterioration in rating quality (Figure 21).

Defaults to remain subdued through 2017

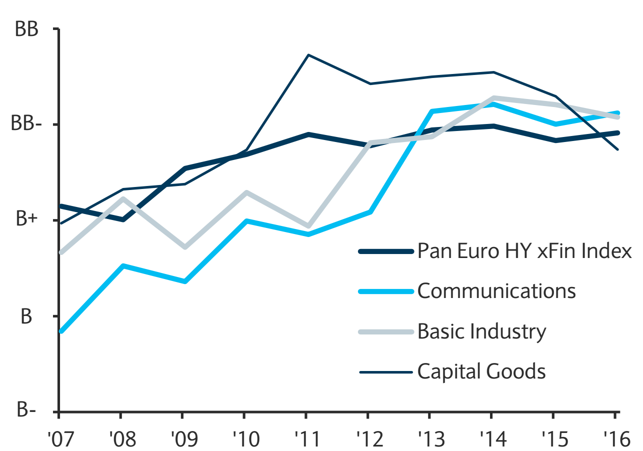
Using top-down and bottom-up analysis, we forecast a 1.75-2.75% issuer-weighted default rate for HY bonds in 2017 (1.5-2.5% par-weighted), as highlighted in Figure 22.

In *European Credit Focus: 2017 default outlook*, 28 October, we used a two-factor top-down model to forecast the default rate, and we have observed a remarkable correlation with realized default rates (R-squared of 77%). First, our model uses the share of stressed bonds in the index that trade with a cash price below 70. Second, it relies on the ECB's bank lending survey, which shows the net percentage of respondents reporting tighter (looser) lending conditions as a positive (negative) number. This quarterly series is an indicator for the easiness of financing in the economy. Both model factors paint a resilient picture for our default rate expectation in 2017.

From a bottom-up perspective, most low-rated high yield issuers have addressed their upcoming maturity walls already, leading to a limited need to refinance until the end of 2017. The total amount of bond maturities from B and CCC-rated issuers in 2017 amounts to just €2bn (Figure 23).

FIGURE 20

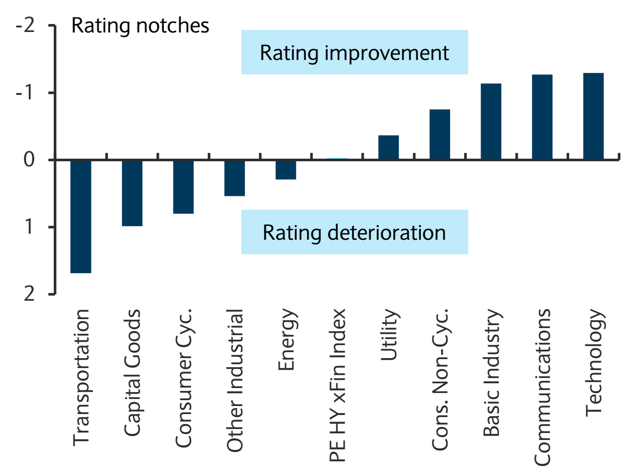
HY index rating quality improved, supported by large sectors



Shows three largest sectors covered by Barclays Credit Research.
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 21

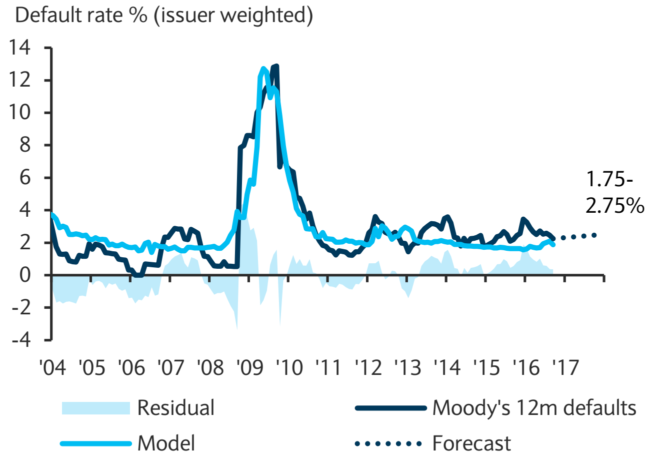
HY index rating quality changes by sector over 5 years



Shows sectors class 4 of Bloomberg Barclays Pan European HY ex Fins index.
Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 22

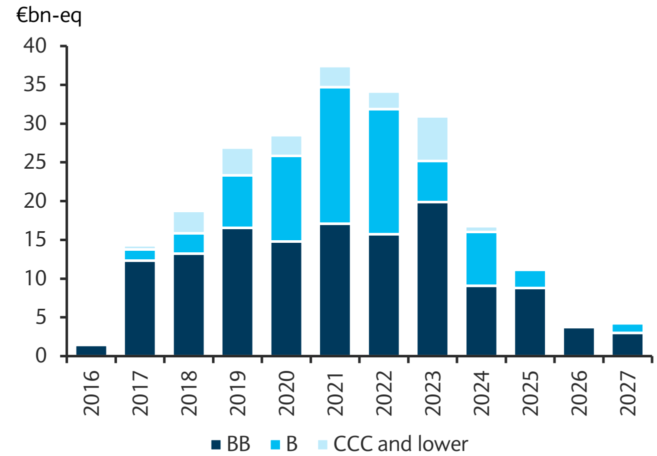
Expected defaults using the two-factor model



Source: Bloomberg, Bloomberg Barclays Indices, ECB, Barclays Research

FIGURE 23

High yield maturity walls have largely been addressed



Source: Bloomberg Barclays Indices, Barclays Research

Net leverage moderately higher, but not to an extent that worries us

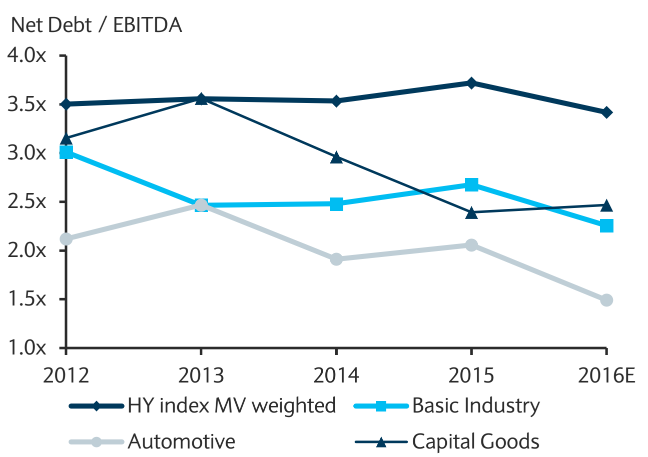
Recent policy action by the ECB and BOE has shifted attention away from company fundamentals. Therefore, we examined leverage trends with a closer focus on individual credit sectors in *European Credit Focus: Sectors levered up and down*, 16 September 2016. We used a data set collected by our fundamental credit research team to create net leverage numbers on the ticker level.

Although the market-weighted index level net leverage in European high yield has increased only slightly over the past three years, sectors trends have diverged meaningfully. While larger sectors such as Automotive, Basic Industry, and Capital Goods supported a deleveraging of the index (Figure 24), smaller ones such as Retail, Healthcare, and Debt Collectors re-leveraged (Figure 25), due mainly to weak industry trends or in-sector consolidation.

Overall, we see a benign fundamental environment in European high yield, despite the marginal increase in leverage.

FIGURE 24

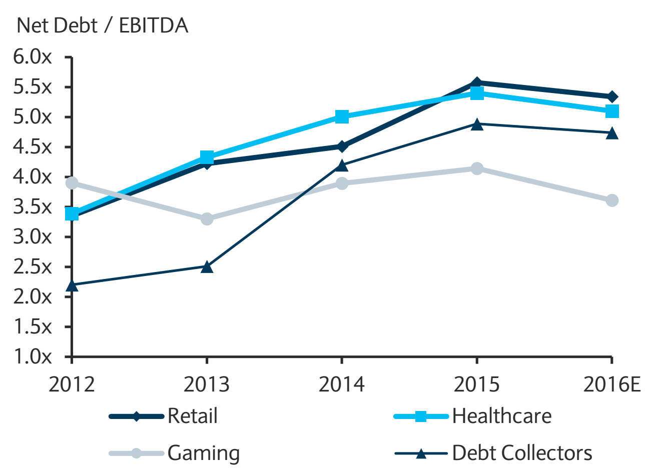
Leverage development in selected large index sectors



Note: Market-weighted index net leverage calculated using data from Barclays analysts. Source: Bloomberg Barclays Indices, Barclays Research

FIGURE 25

Leverage development in selected smaller index sectors



Note: Market-weighted index net leverage calculated using data from Barclays analysts. Source: Bloomberg Barclays Indices, Barclays Research

Key European High Yield sector statistics

Figure 26 gives a sector-level overview of the European high yield index for industries that are covered by our fundamental research analysts. It includes sector weights, current analyst recommendations, spread levels, and duration. Additionally, we show how call constrained the index is using the percentage of bonds that trade above their next call price. It also shows regional exposures to the UK and peripheral countries based on the amount outstanding in each sector. Details regarding our relative valuation metrics can be found in *European High Yield: Relative value in HY sectors*, 6 May 2016, and *European High Yield: Sector schooling for HY relative value*, 16 September 2016).

FIGURE 26

Key statistics for European high yield sectors covered by our fundamental research analysts

		Sector Statistics					Price Upside	Regions		Relative Valuation[1]		
Industry	Barclays Sector Rating	% of Total Market Value	YTW (%)	OAS (bp)	OAD	Average Credit Rating	% Call Constr.	% Peripheral	% UK	vs. Index OAS[2]	vs. Model OAS[3]	Total Return Breakeven[4]
Pan Euro HY		100%	4.1	429	3.6	BA3	25%	33%	19%			
Pan Euro HY ex Fins		78%	4.0	420	3.6	BA3	30%	27%	20%			
Automotive	UW	8%	2.6	298	4.0	BA3	21%	29%	13%	(122)	(39)	(34)
Basic Industry	MW	9%	3.4	379	3.7	BA3	17%	6%	28%	(40)	(27)	(17)
Capital Goods	MW	11%	3.8	422	3.5	BA3	33%	40%	2%	3	1	(5)
Communications	OW	20%	4.0	413	4.1	BA3	31%	43%	11%	(7)	75	1
Food and Beverage	MW	2%	3.9	410	3.2	B1	45%	8%	32%	(9)	(57)	(3)
Gaming	MW	2%	4.1	433	3.7	BA3	33%	38%	59%	13	22	3
Leisure	UW	1%	4.6	471	1.9	B2	71%	28%	56%	52	(18)	33
Other Industrial	MW	2%	5.4	570	2.2	B1	43%	29%	22%	150	47	63
Retailers	MW	3%	6.5	634	3.7	B1	43%	0%	31%	214	5	67
Supermarkets	UW	4%	2.9	293	5.2	BA1	14%	0%	55%	(127)	(8)	(21)
Transportation	MW	2%	5.6	599	3.0	B2	33%	4%	16%	179	(1)	55
Pan Euro HY Fins		22%	4.7	461	3.6	BA2	7%	54%	18%			
Debt Collectors	OW	2%	5.8	587	2.8	B1	40%	13%	31%	127	N/A	41

Data as of 25 Nov 2016

Note: [1]Relative value versus the benchmark index (PEHY ex-Fins Index/PEHY Financials Index for Debt Collectors). [2] Calculated as sector OAS minus benchmark OAS, not quality adjusted. [3]Calculated as sector OAS minus the sector's aggregate modelled OAS, based on our proprietary high yield spread model. [4]Calculated as the amount of relative spread (tightening)/widening required to achieve the same total return as the index, offsetting the current difference in yield. Source: Bloomberg Barclays Indices, Barclays Research

Sector views of our fundamental analysts

Automotive (UW, 8% of index market value)

In 2017, we expect global light vehicle growth to slow to 0.9% from 3.6% in 2016, due to slowing sales in the US and weaker growth in Europe because of Brexit-related weakness in the UK, while China growth should slow after the end of the government's 50% purchase tax cut on vehicles up to 1.6 litre. In addition, we expect some companies such as FCA (FCAIM), Peugeot SA (PEUGOT), and Jaguar Land Rover (TTMTIN) to benefit from at least a one-notch upgrade due to net deleveraging and/or improved operating performance.

However, capex and R&D costs will likely remain high or increase in the next five years, due to increased EM capacity requirements to accommodate rising demand, as well as tougher emission regulations and changes in emissions test procedures. Pricing incentives have been high in Europe and are increasing in the US, which could reduce the pace of margin improvement. Also headline risks from emissions, NAFTA, and Brexit could weigh on sentiment, especially since Autos tend to trade at expensive levels within similar rated buckets within the Pan European HY index.

Basic Industries (MW, 9% of index market value)

Following a weak start to the year for commodities, sentiment (and prices) improved dramatically in 2016, which, combined with liability management actions, has broadly left Metals & Mining companies in a stronger position heading into 2017. While we believe quarterly performance could again be volatile in 2017 and put steel producers at risk of margin squeeze from rising raw material costs, we view many as better placed to weather potential turbulence than a year ago.

For Chemicals, we expect lacklustre demand and M&A to remain key themes in 2017.

The fundamental decline of the Paper sector has caused many companies to seek to diversify into specialty grades and packaging and we expect this process to continue in 2017, as highlighted in *European HY Research - European HY Paper & Packaging: Wrapped up: Initiation of coverage*, 18 October 2016.

Capital Goods (MW, 11% of index market value)

The Capital Goods sector benefits from being highly diversified, ranging from distressed engineering and construction companies to BBs. However, the sector is cyclical and we expect global demand to remain sluggish in 2017 and investment trends to remain weak in the absence of stimulus measures; we believe this low growth environment could encourage restructuring and portfolio management initiatives. For Packaging, while many companies are still relatively leveraged, we expect the resilient nature of packaging demand and company-specific cost-saving initiatives to support EBITDA generation in 2017 (for details, see *European HY Research - European HY Paper & Packaging: Wrapped up: Initiation of coverage*, 18 October 2016).

Communications (OW, 20% of index market value)

We believe that organic top-line growth in the European HY TMT sector will remain challenging, as discussed in *European HY Research - EUR HY TMT - Q3 and FY 16 estimates: Fundamentals remain strong*. However, a continued focus on cost controls should benefit margins, while free cash flow generation remains strong for a significant portion of the sector. Although consolidation is still possible, if the appropriate level of remedies is agreed, TMT has had an increasing number of terminated/withdrawn deals, as a result of regulatory concerns. Due to consolidation and capital expenditure needs, leverage metrics have remained broadly flat in recent periods, despite the EBITDA growth and free cash flow generation. That said, there are some core entities, including Altice, Wind and Swiss mobile operators, that could experience deleveraging trends in the medium term.

Debt collectors (OW, 2% of index market value)

Debt Collectors have experienced significant levels of EBITDA growth in 2016 with y/y increases of 28%, on average. Part of this has been driven by M&A; however, a majority of the growth is organic and we expect this trend to continue. The level of portfolio purchases, coupled with benefits of scale, should continue to support solid organic EBITDA growth. As the debt collectors have become more diversified and built scale over the past year, we believe their business models are increasingly resilient and should withstand competitive pressures that may occur as a result of the merger between Lindorff and Intrum Justitia, which is still subject to regulatory approval. We expect smaller scale M&A to continue to be a focus for the issuers under our coverage. However, we would not be concerned by moderate increases in leverage, given inherent deleveraging capacity, as evidenced by, for example, GFKL-Lowell, which acquired Tesch Inkasso for €150mn (c.0.3x leverage) and de-leveraged back to pre-acquisition levels in one quarter through EBITDA growth. We continue to see value in the sector, given the favourable trends discussed above.

Food & Beverage (MW, 2% of index market value)

In 2017, Food & Beverage companies will face margin pressure owing to the pick-up in ingredients inflation. In particular, UK food producers are expected to suffer from the weaker sterling, higher labour costs, and pressure from grocers to keep prices low for the consumer end-market. Conversely, the weaker GBP, combined with stronger growth prospects for the US economy and, thus, higher valuations on US stock markets, could spark further cross-border M&A within the space.

Gaming (MW, 2% of index market value)

For the Gaming sector, we expect volatility due to country-specific risks in Italy. Changes in regulations and higher taxes are headwinds for the sector, particularly FOBTS in the UK and further restrictions in Italy. M&A during 2016 included the Ladbrokes/Gala Coral (LADLN) deal; it is likely to continue into 2017, in our view.

Retailers (MW, 3% of index market value)

Retailers are facing structural challenges from several sources, including in the UK a shift to “buy now, wear now”. In addition, we see a trend of demand for retail goods being shifted to leisure spending, which could especially affect womens’ wear as highlighted in *European HY/HG Retail: Barclays UK Spend Trends: Cold snap reinvigorates clothing sales*, 10 November 2016.

UK retailers are under pressure because the weaker sterling resulting from the Brexit vote is likely to translate into higher labour costs and weaker demand from consumers. Several capital structures could come under pressure due to upcoming bond maturities over the next two year, among them Matalan (MTNLN), Takko (TAKKO), and Hema (HEMABV). Additionally, we are still cautious on French retail sector and recommend underweighting the French retailer IKKS (IKKSFR).

Technicals in detail: Moderately weakening due to mutual fund outflow risk

Overall, we find technicals moderately weakening based on the demand side. Specifically, we look at the following trends when we watch the technical environment for Pan-European high yield (Figure 27).

FIGURE 27

2017 technical trends in Pan-European high yield

Technical	Trend
M&A and LBO trends	M&A and LBO supply volumes to remain low
Fallen angels and rising stars	Limited crossing with €10-20bn fallen angels and up to €5bn rising stars
Supply	Slightly higher gross issuance y/y, positive net supply
Demand	Moderate weakening based on mutual fund outflows

Source: Barclays Research

European M&A and LBO remains lacking, for the most part

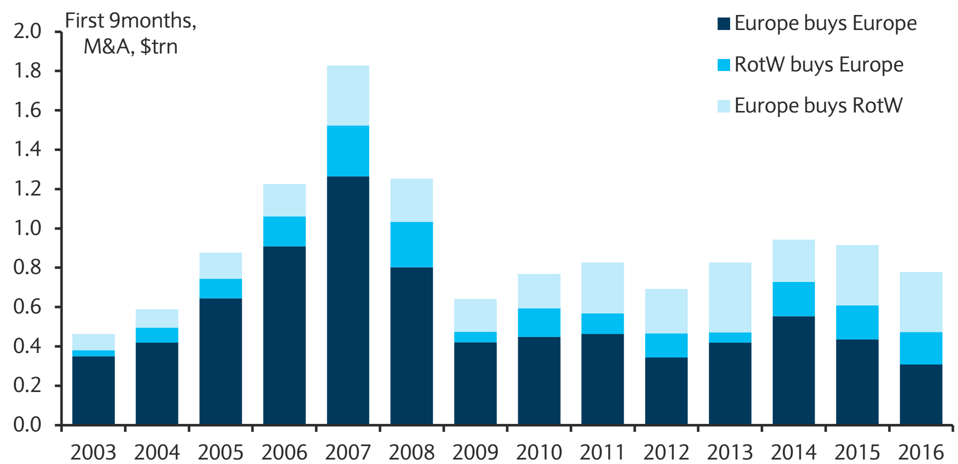
European corporate M&A flows remain subdued, albeit punctuated by mega-deals from the largest and most multi-national credits (Figure 28). This is likely to remain the case until the growth outlook improves, and with the US, the UK and Europe growing near economist estimates of their long-term trends, the upside on this front appears limited. Nevertheless, for 2017, we see risks as skewed to the upside, albeit only in the context of the status quo: moderately firm growth, accommodative monetary policy and low volatility. Our full analysis on M&A was published in *European Credit Focus: Another year on the sidelines*, 14 October 2016.

We expect European LBO activity to remain stuck in a low gear for the foreseeable future. While PE funds have plenty of dry powder and funding conditions remain loose, LBO economics remain challenged by high valuation multiples, competition from strategic buyers, lack of growth and constraints on leverage.

M&A and LBO volumes matter for high yield supply. In our view, M&A- and LBO-driven bond issuance could experience an uptick, especially if economic growth surprises to the upside. Barring that, supply volumes should remain low, as highlighted in *European High Yield: 2017 supply: A quantum higher*, 18 November 2016.

FIGURE 28

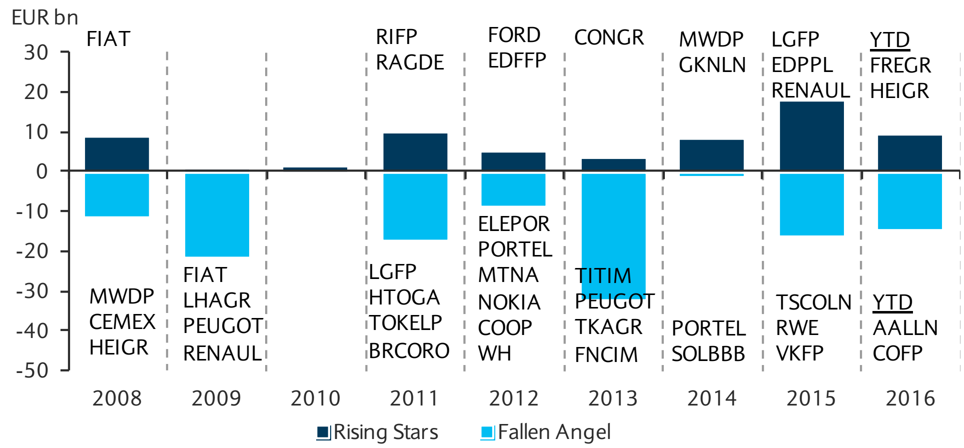
Annual M&A activity involving European companies



Source: Dealogic, Barclays Research

FIGURE 29

Annual non-financial rising star/fallen angel volumes with notable migrants



Source: Bloomberg Barclays Indices, Barclays Research

Rising stars and fallen angels not a big driver of index structure changes

Rating transitions have been a minor component of index technicals in 2016. The combined net fallen angel and rising star volumes amounted to €5bn in 2016 as measured by the par value of all bonds entering the Bloomberg Barclays Pan European High Yield ex-Financials index. Indeed, the lion's share of fallen angel volumes has come from just two names (AALLN, COFP) with rising star volumes similarly concentrated (FREGR, HEIGR / ITCIT).

This may be surprising, considering the spots of volatility in 2016. However, the European market has a relatively limited exposure to the commodities and energy sectors, which suffered most during 2016's sell-offs. Furthermore, the rating actions that did occur happened in some distance to the IG/HY crossover zone.

For 2017 we foresee a limited number of rising stars and fallen angels. Our fundamental analysts identify ZFFNGR, TTMTIN, and AIB as potential rising stars (Figure 30), while BAYNGR hybrids, TDCDC, MEOGR, SOLBBB, and GKNLN are possible fallen angels (Figure 31). Taking this, as well as a top-down analysis of issuers on the edge of either upgrade to IG or downgrade to HY, we forecast €10-20bn of fallen angels and up to €5bn of rising stars, as detailed in *European Credit Focus: Fallen angels/rising stars: Limited crossing*, 21 October 2016. After publication, HEIGR/ITCIT was upgraded in November 2016.

FIGURE 30

Fallen angel candidates for 2017 covered by our analysts

2017 fallen angel candidates		Sector
TDCDC	TDC A/S	Wirelines
MEOGR	Metro AG	Supermarkets
SOLBBB	Solvay	Chemicals
GKNLN	GKN	Automotive
BAYNGR	Bayer (hybrids)	Pharmaceuticals

Source: Barclays Research

FIGURE 31

Rising star candidates for 2017 covered by our analysts

2017 rising star candidates		Sector
ZFFNGR	ZF Friedrichshafen AG	Automotive
TTMTIN	Jaguar Land Rover	Automotive
AIB	Allied Irish Bank	Banks

Source: Barclays Research

We expect slightly higher gross bond issuance in the European high yield market in 2017 than the low numbers during 2016 (see *European High Yield: 2017 supply: A quantum higher*, 18 November 2016). In Pan-European high yield, we foresee volumes of €60-70bn from corporates across currencies. That includes supply of €55-60bn in euro and €5-10bn in sterling. A lack of supply during several volatile periods in 2016 could result in a catch-up in 2017, due to a higher amount of callable bonds that could be refinanced early. On a net basis, we expect continued growth of the non-financials part of the market at low levels.

We think the below factors will dictate supply in European HY:

- Upcoming maturities for 2017 will be approximately in line with last year's figure, while the share of debt that is callable in 2017 is slightly higher.
- Bond-to-bond refinancings are more attractive now than during 2016 and could increase the share of callable debt that is opportunistically refinanced.
- We expect a low share of loan-to-bond refinancing and some bond refinancings in the loan market instead.
- M&A- and LBO-driven bond issuance could experience an uptick, especially if economic growth surprises to the upside. Barring that, supply volumes should remain low, as highlighted above.
- The current yield differential in high yield between Europe and the US will make the European market more attractive for issuers before hedging. However, there is only a limited set of companies that tap both markets; thus, we expect only a moderate effect.
- Several macro events in 2017 could increase market volatility. As a result, high yield market access could become slightly more difficult during specific periods.

Credit quality to remain stable

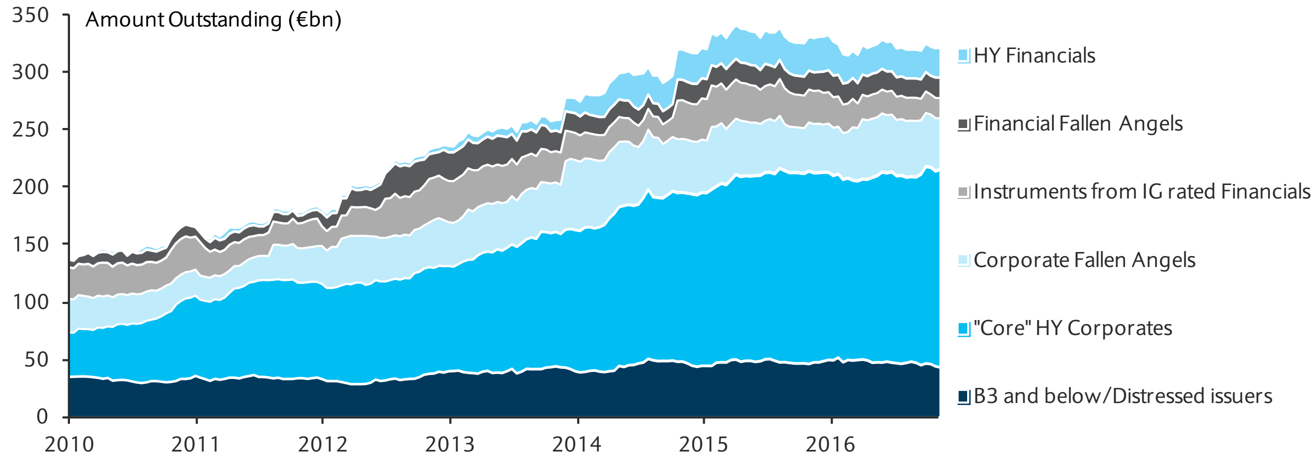
While BB names make up more than 60% of the total volumes of the European HY bond market, these issuers historically contribute only about 40% of new issuance. As M&A and LBO volumes tend to be skewed toward Bs, lower-rated issuance volumes over recent years have been supported by this category. For 2017, we expect issuance trends by rating to be broadly in line with 2016.

Currency dispersion should be consistent with 2016

In 2016 so far, European high yield corporate supply has amounted to €49bn in euro and about €5bn in sterling. The year will likely end with European currency volumes of about €60bn. On top of that comes €17bn of USD issuance by European high yield corporates in the US HY market. The USD number is significantly higher than last year, supported by some large capital structures, such as Altice (ALTICE), Ardagh (ARGID), SFR (SFRFP), and Virgin Media (VMED), that opportunistically refinanced in the US HY market. For 2017, we expect issuance to be split €55-60bn in EUR and €5-10bn in sterling.

FIGURE 32

Pan-European high yield index by type of security



Source: Bloomberg Barclays Indices, Barclays Research

Demand from mutual funds wavering, ETFs stepping in

While the ECB has stepped into the demand picture for European HY, its direct effect on European high yield is limited. It buys high yield, as the ECB defines investment grade more broadly than most benchmark indices. We estimate that the ECB has purchased only about €1bn of European high yield bonds, while the total net assets of European HY mutual funds and ETFs exceed €70bn based on data from EPFR (Figure 33).

One second-order effect of the ECB's actions, however, has shifted the demand landscape for mutual funds and ETFs. While European HY mutual funds have had nearly €5bn in outflows in 2016, ETFs have had roughly €2bn in inflows – the low yield environment seems to increase the price sensitivity for fees charged by actively managed funds. Historically, mutual fund and ETF flows have followed each other quite reliably, but in 2016, this relationship has dissipated (Figure 34). We expect IG managers to maintain their involvement in the high yield market, as some displacement effect from the ECB should motivate them, and as we noted last year, the typical IG fund has roughly 10% exposure to high yield.

FIGURE 33

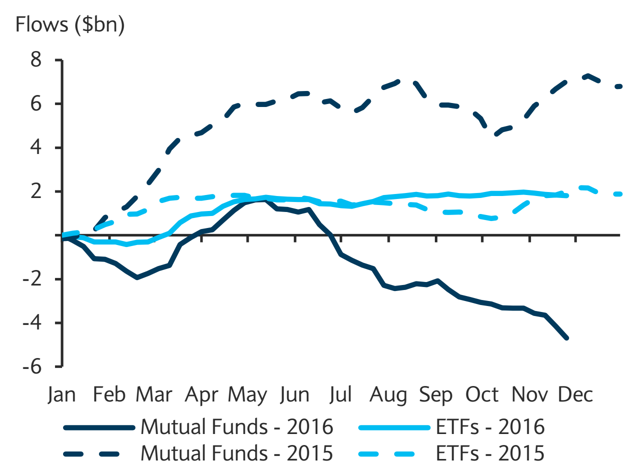
Estimated holdings of European high yield (2015 vs. 2016)

	Estimated Holdings*		
	2015	2016	Difference
All Mutual Funds & ETFs	33%	32%	-1%
Insurance/Pension Funds	25%	25%	0%
IG Funds/Credit Funds	18%	16%	-2%
Hedge Funds	12%	12%	0%
CLOs	4%	4%	0%
ECB	0%	<1%	<1%
Other	8%	10%	2%

Note: numbers in the table have been update as we refined our methodology.
Source: EPFR, ECB, Bloomberg, Intex, Bloomberg Barclays Indices, Barclays Research

FIGURE 34

Year-to-date flows in mutual fund and ETF flows



Source: EPFR

Last, not least: Derivatives – Our crossover outlook

New year, same usage

Despite the majority of the market volatility in 2016 having stemmed from banks or IG (with the introduction of CSPP), iTraxx Crossover has had significant volatility over the year, underperforming Main on a ratio basis for significant periods and only just recently having started to compress vs. Main.

Part of the reason can be found in the mediocre technical picture, with outflows from active funds (as discussed above) and the evolving usage of iTraxx Crossover. As Figure 35 shows, iTraxx Crossover is increasingly used as a way for HY funds to manage liquidity around in/outflows, leaving a meaningful footprint in the weekly change in investor positioning: selling protection when there are inflows, buying protection when there are outflows.

We analyse this phenomenon in detail in *iTraxx Crossover: go with the (fund) flow*, 28 October 2016, where primary market activity was also found to be an important dynamic for how iTraxx Crossover is used.

As the technical picture in high yield is neutral at best, with some headwinds from expected mutual fund outflows, the index is likely to remain active in 2017 as a way to manage liquidity around fund flows. Therefore, it is comforting that our analysis (Figure 36) shows that the ability of Crossover to transmit risk has remained unchanged over the recent years: for a given amount of protection buying/selling by investors, the percentage move in spread has been quite steady over the years. This indicates, to us, that iTraxx Crossover has maintained its depth and remains a viable solution for managing liquidity around flows.

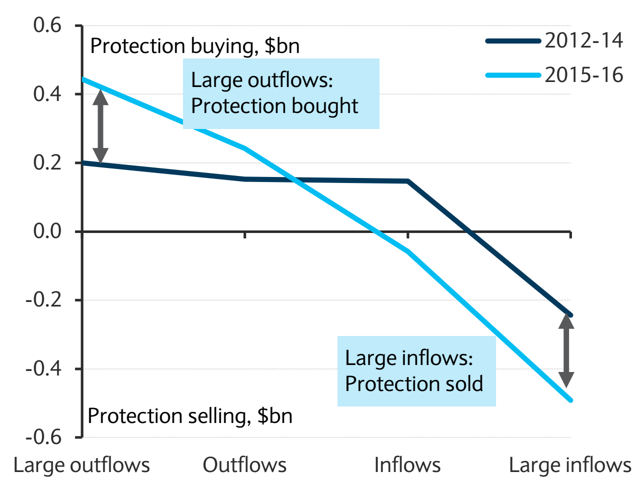
CDS-cash basis: Still not bullish on the basis

When we wrote *Global Credit Outlook 2016: An aging cycle*, 4 December 2015, we used the title of "2015 likely the last good CDS vintage" for European derivatives. Indeed, with the HY CDS-cash basis having started 2016 at about -100bp, it is now -50bp using a basket of bonds matched to the CDS contracts in Crossover Series 26, although it has been a fairly bumpy ride over the year (Figure 37).

We do not think that CDS-cash basis will decrease this year; if anything, the CDS-cash basis could go marginally less negative if Bund yields move higher, as our rates strategists expect.

FIGURE 35

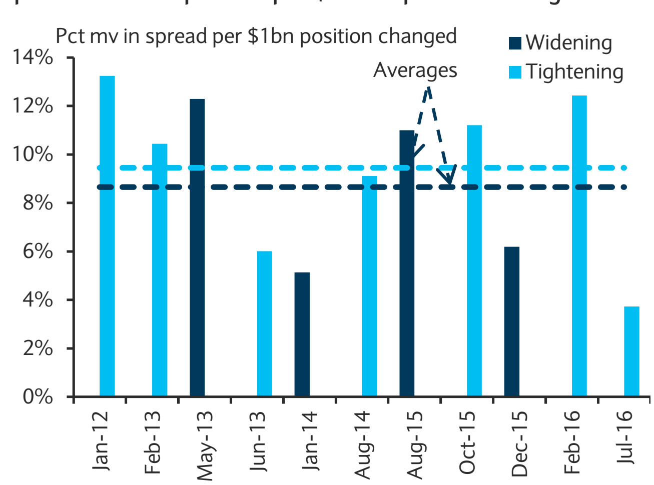
Investor protection buying/selling in iTraxx Crossover for different states of fund flows



Source: DTCC, Barclays Research

FIGURE 36

Spread-position sensitivity for periods of interest: how much spreads move in percent per $1bn of position changed



Source: DTCC, Barclays Research

To think about this, it makes sense to list the drivers of the CDS-cash basis, a topic we analysed in *CDS-cash basis - past, present, future*, 18 November 2016. As is the case for €IG, we believe a meaningful contribution to the negative basis is the better liquidity in iTraxx Crossover than in cash, causing a downward bias on the CDS-cash basis. We can quantify this by comparing the Liquidity Cost Score (LCS) to the CDS-cash basis over time (Figure 38), which shows a meaningful relationship, although in recent months, the CDS-cash basis has been moving higher in the absence on an improvement in cash bond liquidity.

Unlike the €IG basis, however, an important factor for the €HY basis is the callable nature of many HY bonds. With interest rates still very low, many bonds are 'call-constrained' (trading above their next call price) with little additional upside. As such, CDS (effectively a bullet bond) has a superior convexity profile, which should bias the CDS-cash basis downwards. This effect should be felt the most when overall yields are low.

As such, although the liquidity preference will likely keep exerting its influence and biasing CDS-cash basis down, should rates move higher in a sustained fashion, the convexity advantage of CDS will be reduced, which could cause the CDS-cash basis to move less negative.

Putting it all together: Our 2017 forecasts

Based on our forecasts for the HY cash index derived in previous sections, we derive our forecasts for iTraxx Crossover. For completeness, we also include the forecast for iTraxx Main, which is derived separately in the IG section.

Methodology and assumptions

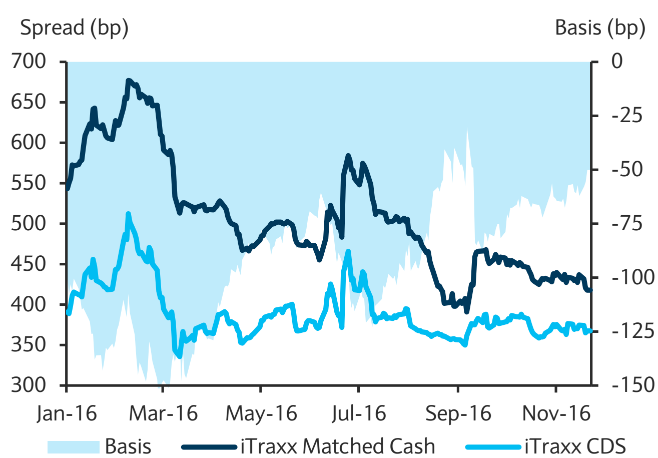
To forecast Crossover spread levels for year-end 2017, we employ a methodology similar to that detailed in the Investment Grade section: we rely on the forecasts for cash indices in our three scenarios (base/upside/downside, Figure 11) and based on the empirical relationship between the cash and CDS indices, we can forecast where Crossover will be in each scenario.

In line with the discussion above, we assume that the CDS-cash basis is unlikely to experience deep negative levels similar to 2016, but could rise somewhat from the current -50bp. We assume a +10bp increase in Crossover from this driver, although we believe this could become -30bp if rates drop back to the most negative levels of this year, for example, in a systemic sell-off.

We also assume that the current index-intrinsic skew of +10bp will normalize to -5bp, still wide of the two-year average of -10bp.

FIGURE 37

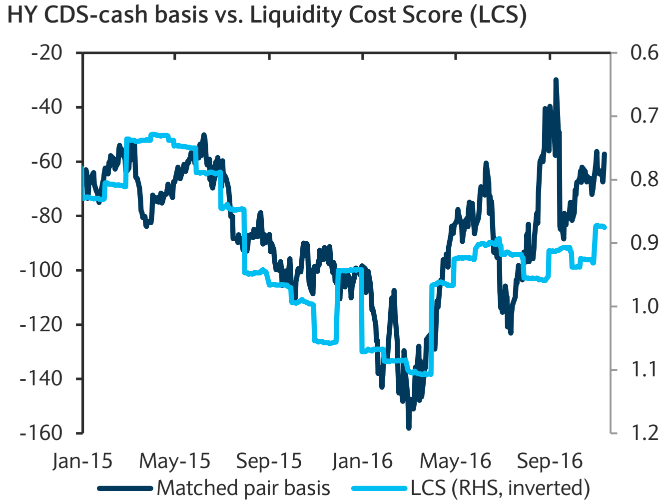
CDS-cash basis: Choppy but trending upwards



Source: Barclays Research

FIGURE 38

HY CDS-cash basis vs. Liquidity Cost Score (LCS)



Source: Barclays Research

Interpretation of results

With these assumptions, we present our forecasts for Crossover in Figure 39. We derive three key points:

- In our base case, Crossover will be only marginally wider than current levels – 5bp – even if we expect the €HY cash index to be 20bp wider. The reason is that our expectations of a normalized skew (back towards negative from the current positive level) and a marginally higher CDS-cash basis balance out some of the implied widening derived from the historical relationship between the HY cash index and Crossover.

- Even so, in our base case, Crossover will underperform Main, taking the current ratio of 4.25x to 4.76x, because we expect Main to tighten in our base case, as the CDS-cash basis will shrink somewhat, with not nearly the same counterbalance on the HY side. Also, in the upside case, do expect Crossover to underperform Main, in line with our assumptions in cash space, but amplified by our assumption of the Main CDS-cash basis dropping somewhat.

- In the downside case – politically/systemically driven – we expect a meaningful amount of compression in Crossover/Main, as Main would underperform both due to financial risk but also because of broad-based risk reduction. In that case, we expect the ratio to move back to year-tights of about 3.7 and the Crossover-4xMain at -30bp, also at the lows of 2016.

FIGURE 39

Spread forecasts for CDS indices

	Actual	Baseline	Upside	Downside
Main	80.0	72.5	60.0	110.0
Cross	340.0	345.0	305.0	410.0
Key RV measures				
Cross/Main	4.25	4.76	5.08	3.73
Cross-4x Main	20	55	65	-30
Change from current				
Main		-7.5	-20.0	30.0
Cross		5.0	-35.0	70.0
Cross/Main		0.51	0.83	-0.52
Cross-4x Main		35	45	-50

Source: Barclays Research

FIGURE 40

iTraxx Crossover/Main ratio with scenarios

Source: Barclays Research

EUROPEAN LEVERAGED LOANS AND CLOS

The new equilibrium

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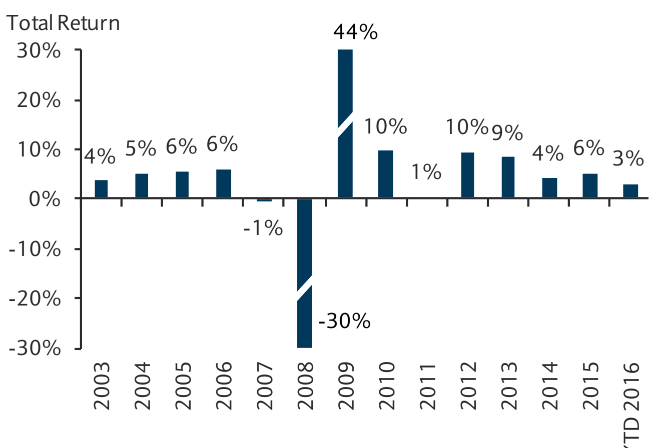
- **We expect European institutional leveraged loans to return 2.5-3.5% in our base case for 2017. The absolute valuations do not look compelling, but the relative value (in risk-adjusted terms in particular) is very attractive, technicals are likely to stay supportive and default rates are set to stay low (2-3%).**
- **Loan supply should remain in the €45-50bn range in 2017, driven by stable LBO supply, subdued strategic M&A and IPOs and a further improvement in the bond-to-loan dynamic.**
- **In European CLOs, following the rally in IG tranche spreads in 2016, the relative value versus IG credit is now less attractive, but for many long-term investors, senior CLO tranches remain among the most compelling opportunities. We expect the demand in that part of the capital stack to remain strong in 2017.**
- **We expect CLO supply to come in the €15-20bn range in 2017 on stable demand and robust collateral creation in the loan market. However, the risks to our forecast are skewed to the downside.**

Leveraged loans: Slowly but surely

European institutional leveraged loans returned 3.5% in 2016 on an outright basis (Figure 1) and 5.3% on a EUR-hedged basis, with the difference in returns driven by a large currency move in GBP-denominated loans around the UK referendum.

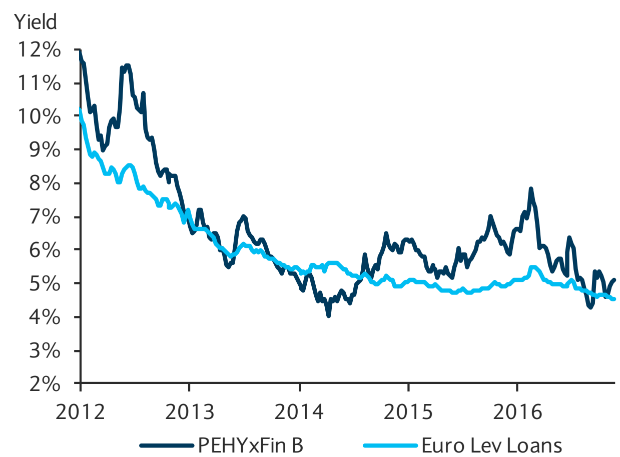
Loans underperformed European single-B rated bonds, which have delivered 7.7% in total return so far this year (on a EUR-hedged basis). The underperformance was driven by a combination of wider starting spread in bonds (Figure 2) and the limits on the upside in loans as prices approaching 101 translated into a surge in re-pricings and refinancing in Q4 16.

FIGURE 1
European leveraged loan total returns



Note: Returns not FX hedged. Source: S&P CIQ LCD, Barclays Research

FIGURE 2
Euro leveraged loans versus single-B bonds



Note: For loans we calculate yield as a sum of the average 3-month discount margin in the S&P ELLI index and 5-year EUR swap rate. For HY we use yield-to-worst. Source: Barclays Research

Loans did not disappoint in terms of risk-adjusted returns. The path to positive returns year to date was fairly smooth, with only a small sell-off in January-February at the height of the oil rout (average ELLI price dropped 1.7pts between December 2015 and February 2016), which looked very benign compared with the weakness in HY (a 6pt drawdown during the same period in single-Bs). As a result, European loans delivered a higher return per unit of volatility compared with HY bonds (both European and US) as well as US loans.

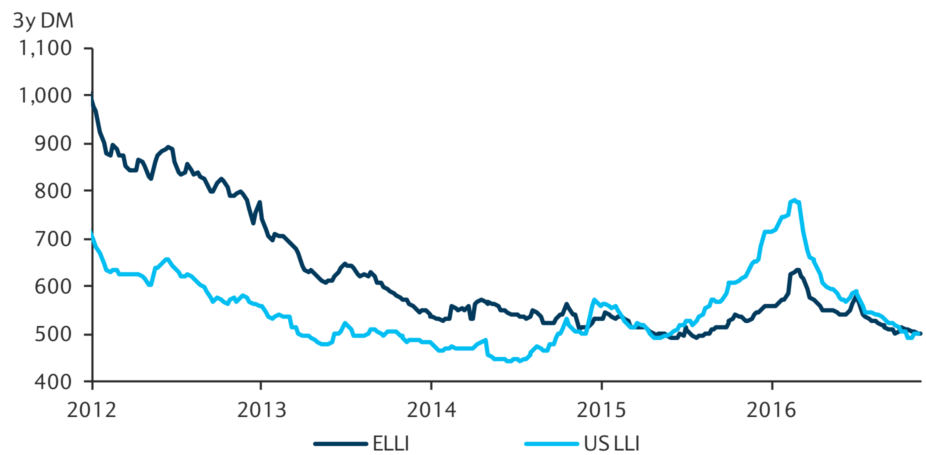
Valuations – The new post-crisis tights

The European loan market is entering 2017 with average yield to maturity at all-time lows (4.6%), an average discount margin near post-crisis tights (505bp), the average price trending towards par (currently at 98.7) and more than 70% of the loans trading at or above par (the highest proportion since the end of the crisis). These valuations do not leave much room for error.

However, the relative value versus comparable asset classes does not look as bad as the absolute levels would suggest. First, European single-B non-financials trade with a yield of 6.1%, which is also near all-time lows and, as we have seen numerous times before, this higher yield tends to come with a much higher volatility. Second, European loans trade roughly in line with US loans in spread terms (Figure 3).

FIGURE 3

European versus US leveraged loans



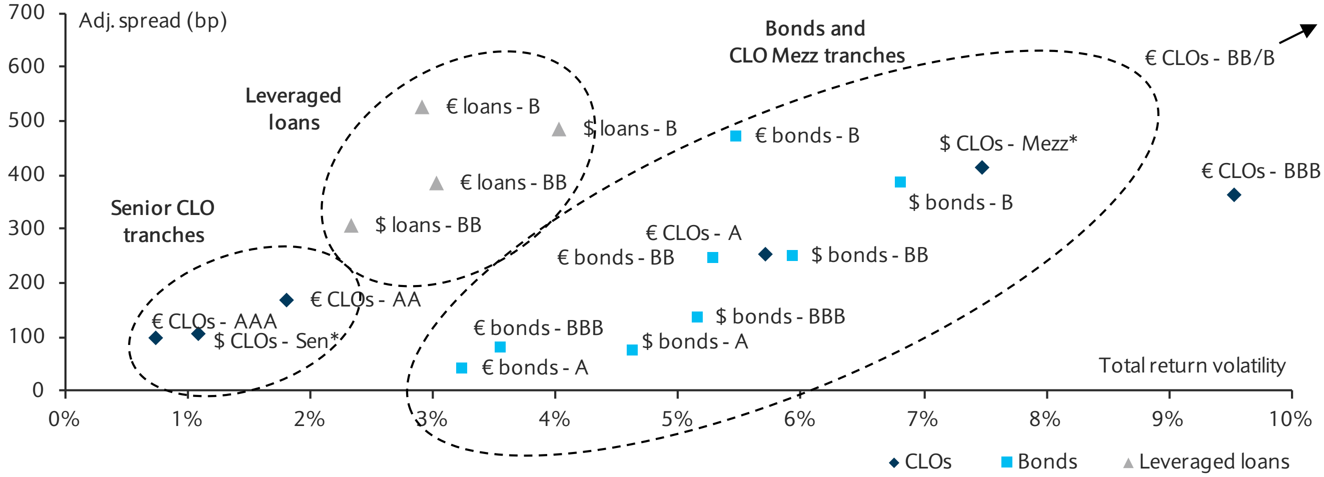
Source: S&P CIQ LCD, Barclays Research

Furthermore, European loans continue to look very attractive on a risk-adjusted basis versus the broad credit risk spectrum. To illustrate that, in Figure 4 we plot spreads (y-axis; adjusted for cross-currency basis) versus total return volatility (x-axis) for European and US loans, CLOs and bonds across the rating spectrum. One theme that stands out is that European loans (the single-B rated loans in particular) offer one of the best combinations of current spread versus historical return volatility. For example, B-rated loans offer roughly the same spread as bonds with equivalent ratings, at nearly half the returns volatility.

Finally, we also think that the floating-rate nature of the asset class should gain more attention from investors as QE tapering continues to move higher up the ECB's agenda in 2017, although we think that a major move in short-term rates is highly unlikely. It will be important to keep in mind that most of the European loans now have Euribor-floors (in particular, c.40% of all loans in the ELLI index have non-zero floors, with the average floor at c.95bp), which means that the protection against the rate risk is limited as long as short-end rates remain well below 1%.

FIGURE 4

Current spreads versus two-year return volatility



Note: "Adj. spread" means average L-OAS for bond sub-indices, 3-year discount margin for loans and discount margin for CLOs. We adjust $ spreads for cross-currency basis (we apply -45bp adjustment in line with 5yr EURUSD basis observed currently). * "$ CLO Sen" refers to size-weighted AAA and AA tranches of US CLO 2.0/3.0s; "$ CLO Mezz" refers to size-weighted A-BB tranches of US CLO 2.0/3.0s. Source: Bloomberg, Barclays Research

Forecast

We acknowledge that absolute valuations in loans are not compelling, but 1) the relative value (in risk-adjusted terms in particular) remains attractive; 2) technicals are likely to stay supportive, with strong and sticky demand leading the supply; and 3) default rates should stay low (we discuss the technicals and the default outlook in detail below).

In that context, in our base case we forecast that loan spreads widen by 25bp in 2017 – a move corresponding to our forecast for European single-B non-financial (please see the European High Yield section for details) adjusted for the typical loan-bond beta. With that assumption and taking into account our 2017 default forecast of 2-3% (assuming 30% loss given default), we estimate our base case total returns in leveraged loans to be in a 2.5-3.5% range.

FIGURE 5

Baseline return expectations for European bank capital

	Current levels*		2016 forecast		
	Spread	Price	Spread	Price	Total return
European loans	505bp	98.7	530	98.0	2.5-3.5%

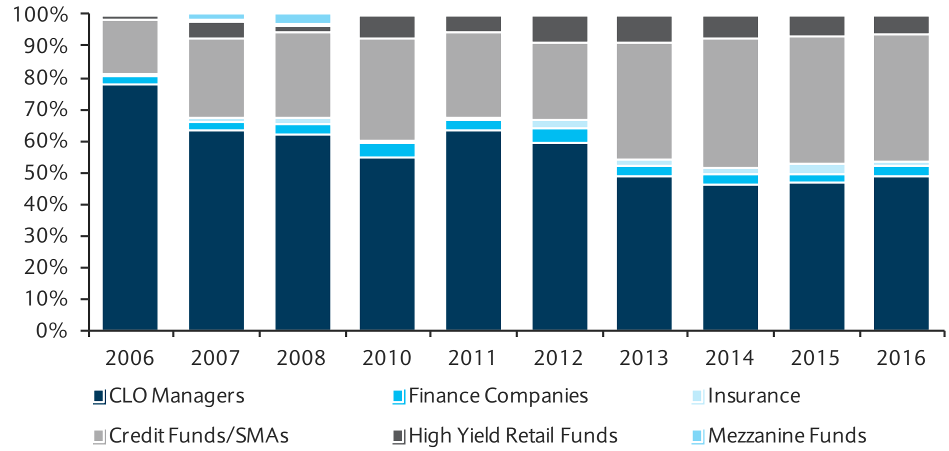
Note: * Current levels as of 25 November 2016. Source: Barclays Research

Demand – Boost from CLO creation

A big part of the positive return story in loans in 2016 has been the demand. As we highlighted in the past, there is virtually no retail participation in the European leveraged loan market. Moreover, the demand is dominated by CLOs and credit funds, with CLOs forming the most stable part of the buyer base (Figure 6). This favourable demand structure has been the primary driver behind a relatively low volatility of loan returns this year and in prior years.

FIGURE 6

Breakdown of institutional investor base (in primary market)



Source: S&P CIQ LCD, Barclays Research

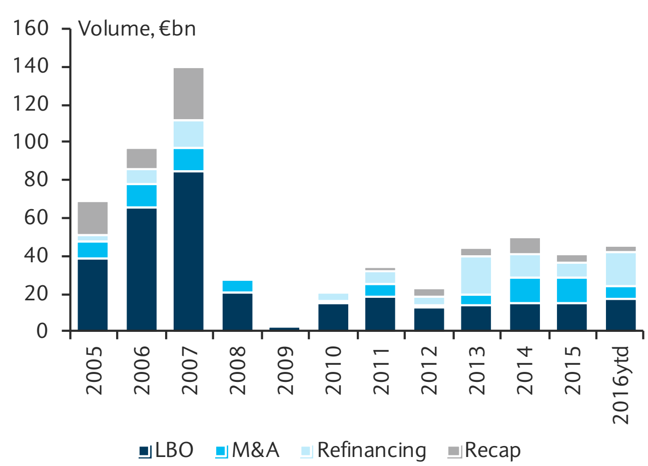
This year, the demand for loans received an additional boost from the ECB, as the hunt for yield sparked by the central bank's asset purchase programs drove investors into the loan market, either directly or via CLOs. Indeed, as we show in Figure 13 in the CLO section below, the CLO market this year has delivered net supply firmly in positive territory for the first time since the end of the 2008-09 crisis, as the asset class finally found an efficient combination of collateral valuations, cost of liabilities and equity arbitrage. We think that a positive demand technical for loans will continue in 2017 on the back of what we expect to be a healthy pace of CLO creation (as we discuss in more detail in the CLO section below).

Supply – A steady flow

Gross loan supply in 2016 is set to finish the year in the €45-50bn range (Figure 7), in line with our expectations, but the net supply has surprised strongly to the upside at €11bn, reversing the slide in the size of the European institutional loan market seen in 2015 (Figure 8). The surge in net supply was driven by a decline in loan repayments related to strategic M&A and IPOs (Figure 9) and by an improvement in the net bond-to-loan dynamic (Figure 10). Despite the increase in net supply, we have not seen signs of pressure in the primary markets – the overwhelming demand technical amid overall yield compression in European credit made it a firmly issuers' market in 2016.

FIGURE 7

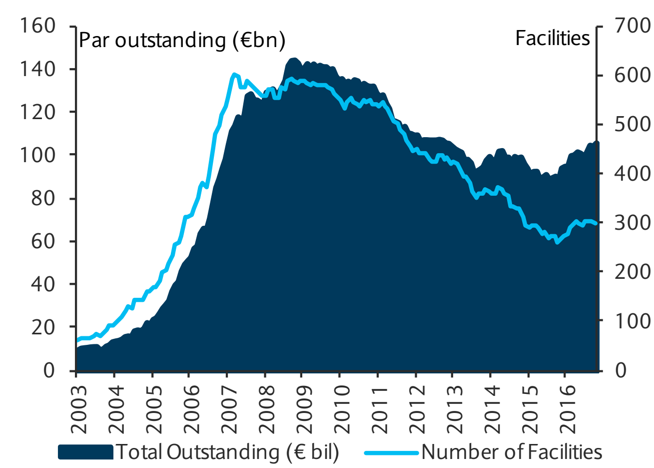
European institutional leveraged loan issuance (by purpose)



Source: S&P CIQ LCD, Barclays Research

FIGURE 8

S&P ELLI index amount outstanding



Source: S&P CIQ LCD, Barclays Research

As our base case for 2017, we see gross supply staying roughly unchanged in the €45-50bn range, with €10-15bn in net supply. Our forecast assumes that European LBO activity will remain stable at levels observed since 2011, providing the main source of net supply (ie, €15-20bn p.a., for details see *European LBOs: Stuck in low gear*, 14 October 2016). Furthermore, European strategic M&A and IPO activity are both set to remain subdued as long as growth does not pick up meaningfully, which should be supportive for net loan supply as well. We also think that net bond-to-loan refinancing is likely to continue to increase in 2017, as easy loan market conditions driven by ongoing strong investor demand should enable more of the post-crisis loan-to-bond deals to come back to the loan market.

One new consideration for the primary loan market in 2017 will be the ECB's leverage guidelines. The guidelines are modelled on already existing US leverage guidelines, with the key rules including: 1) deals with leverage above 6x should be "exceptional"; and 2) the borrower should be able to repay half of its debt within five to seven years. While the US and some of the global banks already apply the US guidelines in their underwriting process, an addition of the European version will put pressure on the LBO volumes in Europe at the margin.

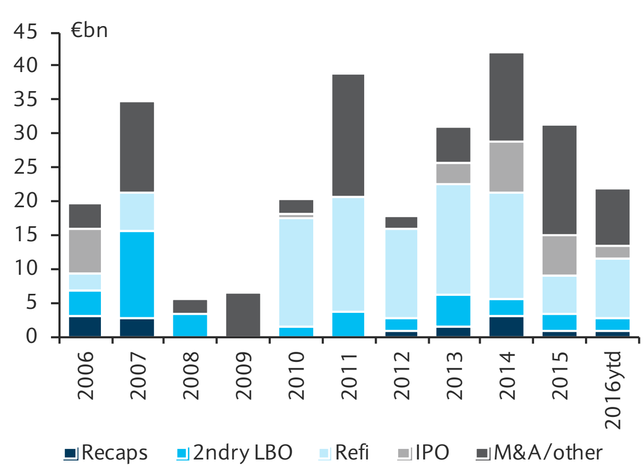
Defaults – Another year at the lows

The trailing 12-month default rate in the European leveraged loan market increased to 3.5% as of the end of October, up from 2.0% at the end of 2015 (Figure 11 – the blue line; by count of issuers in S&P ELLI index), driven by a number of strictly idiosyncratic situations, which in most cases were "repeat offenders".

We do not see strong signals that would suggest a broader, systemically-driven surge in defaults is under way. To the contrary, the key macro default risk indicators are far from flashing red. First, bank lending standards for corporates in Europe remain relatively loose following a two-year period of continuous easing, although the latest ECB lending survey showed that the loosening cycle may have peaked (Figure 11 – the dark-blue line). Second, with more than 95% of the European loan market (using S&P's ELLI index as a proxy) trading at a cash price above 90, investors are showing little sign of concern. The flipside is that the picture may be to some extent blurred by very strong technicals this year. Third, only 3% of the ELLI index is rated CCC or lower, which is also near the historical minimum. And finally, covenant-lite issuance has continued to dominate this year, as issuers take advantage of what clearly has been "a seller's market". We think that at the margin the rise of covenant-lite issuance is positive from a default risk perspective, as it should be easier for the marginal issuer to survive a period of stress with less restrictive covenants (even if this ultimately is negative for recovery rates).

FIGURE 9

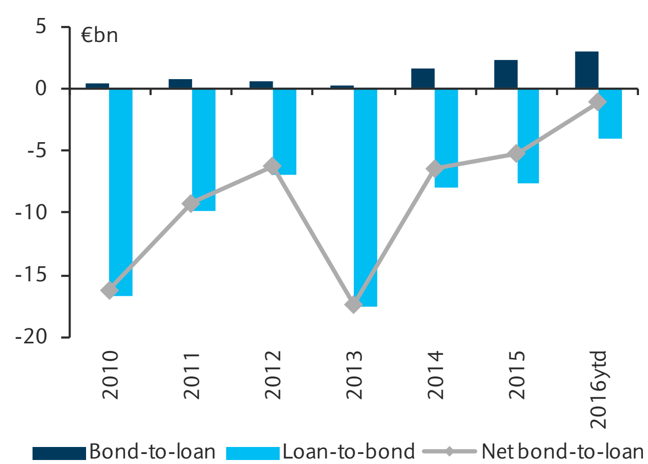
Loan repayments by reason



Source: S&P LCD, Barclays Research

FIGURE 10

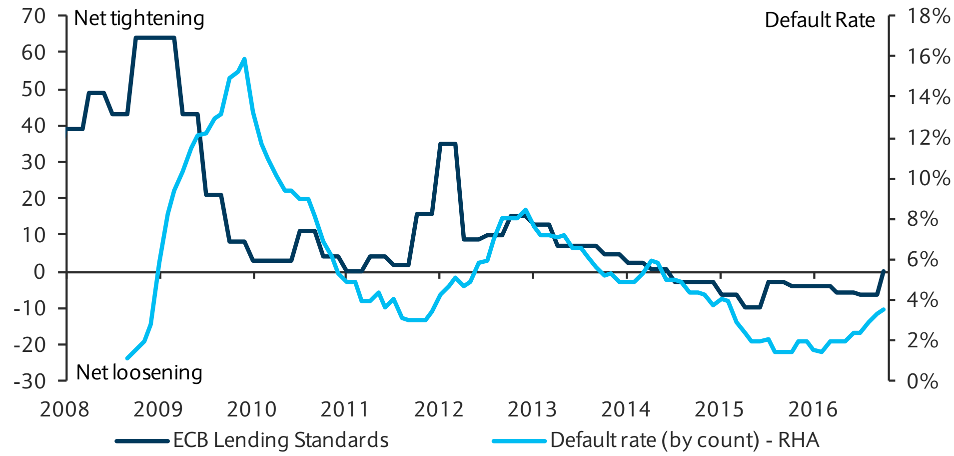
The loan-to-bond and bond-to-loan trends



Source: S&P LCD, Barclays Research

Overall, the default rate should remain low in 2017 and we see it in a 2-3% range in our base case.

FIGURE 11
ELLI default rate vs ECB lending standard survey



Source: ECB, S&P CIQ LCD, Barclays Research

European CLOs – A well-oiled machine

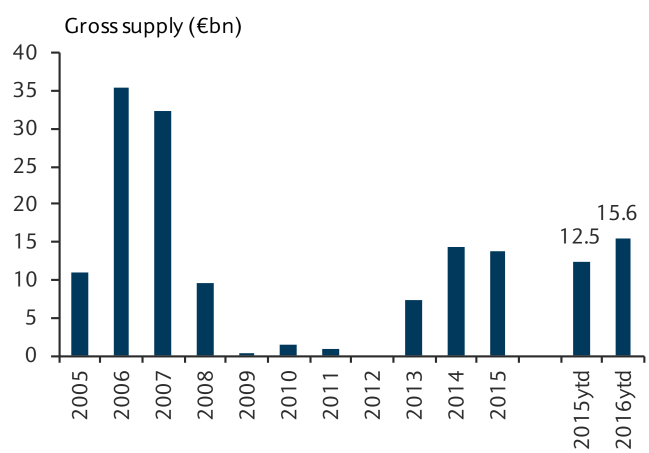
The European CLO market has finally found an efficient combination of collateral valuations, cost of liabilities and equity arbitrage, making 2016, in many ways, the best year for the asset class since the beginning of the 2.0 era: gross and net supply hit the records, the investor base has broadened, and AAA spreads reached 2.0-era tights.

Growth returned to CLOs…

European CLO supply has surged to the new highs of €15.6bn year-to-date, in line with our 15-20bn forecast. This is well above €12.5bn supply achieved by this time last year and above the post-crisis record of 14.5bn in 2014 (Figure 12).

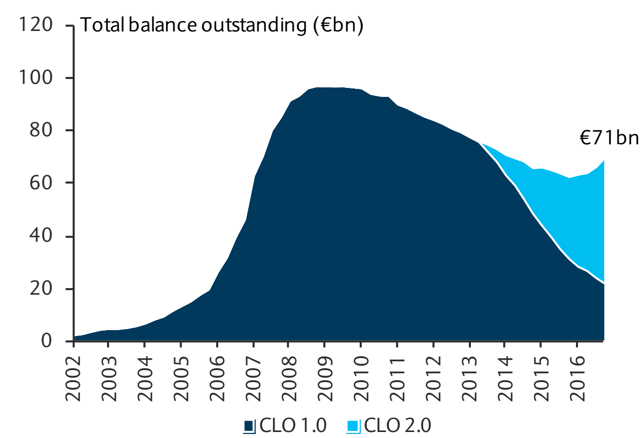
Notably, this is the first year since the 2008-09 crisis with positive net CLO supply in Europe, driven by a combination of stronger gross 2.0 issuance and a material decline in CLO 1.0 redemptions (Figure 13). The total market size currently stands at c. €71bn, which is c. €8bn more than at this time last year.

FIGURE 12
European CLO supply



Source: S&P CIQ LCD, Barclays Research

FIGURE 13
The size of European CLO market



Source: Bloomberg, Barclays Research

...supported by attractive senior tranche valuations...

We identify two main drivers behind this year's surge in gross 2.0 supply. First, we have seen a clear increase in demand for CLO paper from a variety of investors, particularly in the IG-rated tranches – the part of the capital stack that suffered from demand shortfalls in the past. That demand was spurred by the developments in the broader global credit markets – for many IG-focused investors it became difficult to ignore European CLOs given their valuations and credit performance track-record in light of the general yield compression in corporate credit. In addition, for foreign investors, European CLOs offered an attractively priced alternative to US CLOs – a market in which supply has declined this year.

...robust leveraged loan supply...

Second, the CLO supply has been helped by strong net supply in European leveraged loans (which, as discussed in the previous section, was driven mainly by a reduction in M&A and IPO related loan repayments). Absent the growth in the loan market, it would have been difficult for new CLOs to source collateral, given the sharp drop-off in liquidations of CLO 1.0 portfolios (we estimate the CLO 1.0 redemptions in 2016 YTD at €9.5bn vs. €17bn last year).

...and attractive equity arbitrage

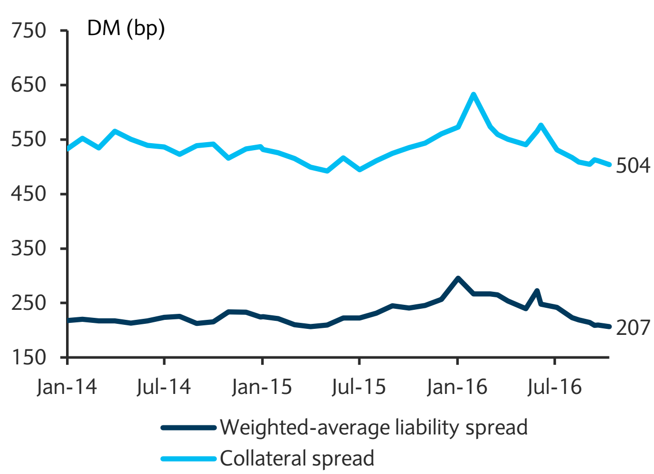
Supply has also been supported by the fact that expected CLO equity yields remained attractive thanks to stable collateral-liability spread dynamics (that benefitted additionally from mismatches in Libor floors between the CLO liabilities and underlying loans amid historically low front-end rates). We show the average collateral spreads versus the weighted-average liability spreads in Figure 14.

The rally creates challenges...

In late 2016, we have seen a significant increase in refinancing/re-pricing activity in older CLO 2.0s on the back of the sharp tightening in IG tranche margins in the recent primary transactions. Indeed, AAA spreads in the primary market have been printing in the 95-105bp range in Q4 16, while the average spread on existing 2.0 AAAs is c.135bp. Hence, the re-pricing trend is likely to continue, creating a ceiling on CLO debt performance (and serving as a release valve for the pressure building on equity returns).

FIGURE 14

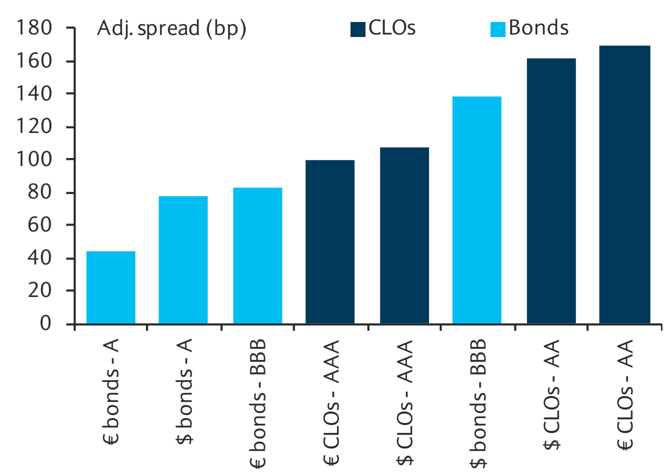
CLO liability spreads vs. collateral spreads



Note: We use 3-year discount margin on the S&P ELLI index as a proxy for the average collateral spread in European CLOs. Source: S&P CIQ LCD, Barclays Research

FIGURE 15

European credit spectrum – IG



Note: USD spreads were adjusted for FX risk by subtracting 5-year EURUSD cross-currency basis swap rate of 45bp. Source: Barclays Research

The big question is what the new tights in AAA and AA spreads mean for the demand and performance in 2017, given that the surge in demand for CLO IG debt this year relied primarily on attractive relative value versus other credit asset classes. In July 2016, when we recommended buying senior tranches of European CLOs (see *CLOs for low yield environment*, 14 July 2016), the argument was extremely compelling – generic AAA spread was at c.150bp while single-A and BBB-rated EUR IG bonds were trading at c.39bp and 72bp, respectively. At the time of writing, AAAs are at 100bp, while the bonds are at c.45bp and 83bp, respectively (Figure 15). Furthermore, we expect the EUR IG bond spreads to widen slightly in our base case for 2017 (for details see the European IG section of this outlook) against a macro backdrop driven by a small pick-up in inflation and ECB inching towards tapering of the QE program possibly towards the end of the year. In addition, the risk is skewed to the downside due to a potential disruptive anti-establishment vote in one of the major elections in the EU in 2017. Hence, the relative value is likely to become even more stretched next year, which could weigh on the performance and on the demand for the asset class.

...but valuations are still attractive on a risk-adjusted basis

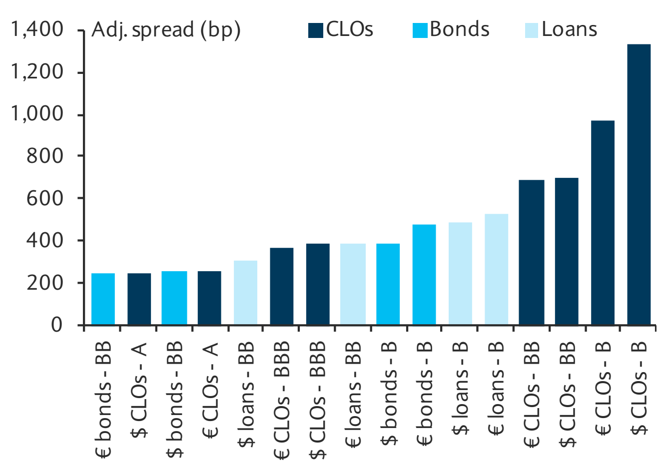
All that said, the risk-adjusted relative value in senior CLO tranches remains compelling even at current tighter levels. To see this, it is useful to go back to Figure 4 above, where we showed current spreads (FX-adjusted) versus total return volatility for CLOs, bonds and loans in Europe and the US across the rating spectrum. One of the key observations there is that senior CLO tranches have been the least volatile of all sectors shown, even though they still offer spreads materially wider than those in lower-rated bonds. We think that for many long-term investors, senior CLO tranches remain among the most compelling opportunities and on that basis, we expect the demand in that part of the capital stack to remain strong in 2017.

2017 supply to stay strong

Looking into 2017, we expect CLO 2.0 supply (excluding refinancing and re-pricing) to remain in the €15-20bn range, as we believe that demand for CLOs should remain robust and the loan market should deliver necessary net supply to accommodate further growth, as discussed in the previous section (strong loan market pipeline is necessary, given that collateral releases driven by CLO 1.0 redemptions should continue to slow down). However, the risks to our forecast are skewed to the downside.

FIGURE 16

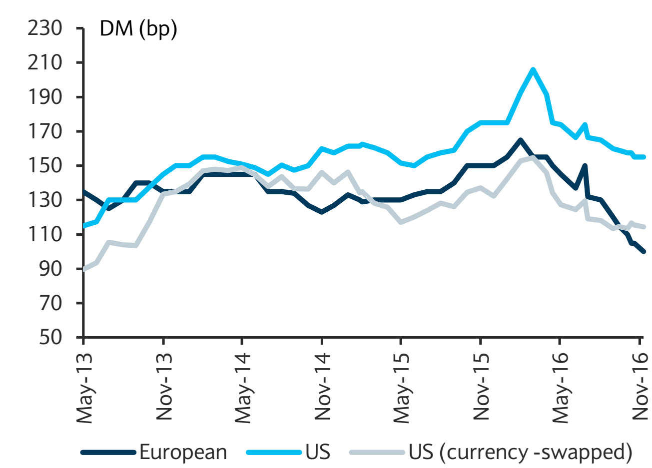
European credit spectrum – HY



Note: USD spreads were adjusted for FX risk by subtracting 5-year EURUSD cross-currency basis swap rate of 45bp. Source: Barclays Research

FIGURE 17

US vs. European CLO 2.0 secondary AAA spreads



Source: Barclays Research

First, as discussed above, the demand for IG tranches may weaken if the relative value in European CLOs versus other IG opportunities deteriorates materially. Second, for foreign investors, one of the key indicators is the relative value in European vs. US CLOs. The sharp rally in IG tranche spreads in Europe in H2 16 has reduced their attractiveness versus comparable US spreads (Figure 17). Any further outperformance versus US CLOs could be detrimental to non-European demand for European IG tranches. We think that the desire to maintain the demand from the foreign investors is likely to keep this relative value in check.

Finally, securitisation regulation remains an overhang for the CLO market. We are currently awaiting the final position on the STS Securitisation Regulation from the European Parliament. One of the key issues is the risk retention requirement, with the potential recommendation from the MEPs ranging from the current 5% all the way to 25%. A material increase of the requirement would have a chilling effect on the CLO market, although we think that any extreme view from the Parliament is likely to be tempered by the European Commission and the European Council (both of which support the 5% requirement) and/or offset with some concessions (eg, a lower risk retention in exchange for accepting a minimum seasoning period for collateral; for details see, *Risk retention requirements in focus*, 11 October 2016). Of note, the latest reports suggest that the European Parliament's position is evolving towards a much more manageable proposal of 10% risk retention for vertical retention, and 5% for horizontal retention.[7]

Uncertainty also remains about the treatment of UK-based managers and retention holders in the context of Brexit. For now, the market continues to work under an assumption that any significant change would involve some type of grandfathering and/or a long transition period.

[7] *European Parliament Sticks With Higher ABS Retention Proposals*, Bloomberg, 23 November 2016.

Global Hybrid Capital

GLOBAL HYBRID OUTLOOK

The tortoise and the hare

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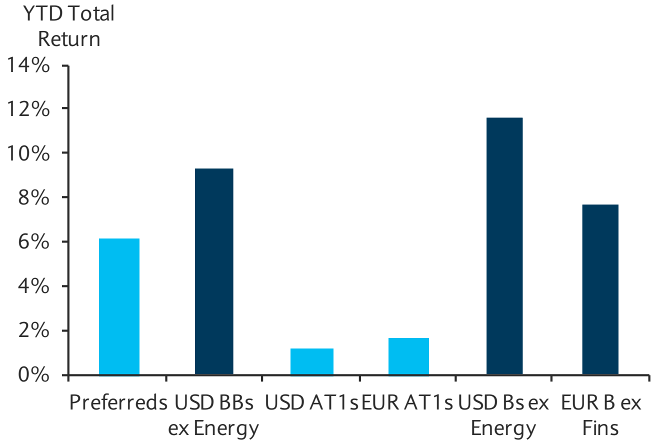
- **We expect US bank preferreds to generate 4.5-5.5% in total returns in 2017. Strong US bank fundamentals and favourable supply technicals should keep preferred volatility low, although tight starting valuations will limit the extent of any rally, in our view. Rates risk will be key in the space: although preferred spreads are, in general, wide enough to absorb the move in yields, parts of the market could come under pressure in a meaningful Treasury sell-off. We favor shorter non-call preferreds, as they have lower rate duration and trade at a wider spread.**
- **European bank AT1s: In our base case, we expect *c.*25-50bp tightening in CoCo spreads (translating into an 8-10% total return) amid small improvements in European inflation and growth and lower pressure on bank profitability as rates rise further. The downside risks to our projection include a disruptive election outcome in the EU, deepening capital woes at Italian banks and Deutsche Bank, and a disappointing macro backdrop. We recommend focusing longs on mid-beta credits and strong structures.**
- **European bank LT2s: In our base case scenario, we expect LT2s to follow our IG credit forecasts – staying roughly flat in the low 200bp area in spread terms, and generating 1.75-2.75% of excess return in 2017.**
- **European corporate hybrids: We expect excess return of about 3% for corporate hybrids in 2017. The forecast is underpinned by a mild improvement in European macro, with a prospect of non-disruptive tapering in H2 2017, and an assumption that political events in the EU in 2017 will have moderate outcomes. The risks to our forecast are skewed to the downside; we still prefer short calls over long calls.**

After a weak start to the year, US and European bank AT1 securities recovered in line with other risk assets. However, although US bank preferreds rallied, with total returns of more than 6% this year, the rise in European bank CoCo valuations has been less impressive, with CoCos generating only about 1.5% in total returns (Figure 1). Across the two markets, bank capital underperformed corresponding HY debt, in line with the broader underperformance of financials relative to industrials observed in senior debt. As the oil price recovery drove HY valuations higher, US bank preferreds (most of which are BB-rated) underperformed BBs (even excluding energy). Similarly, CoCos underperformed B rated debt in the US and Europe (while most CoCos are rated BB, we compare them to Bs given their similar volatility profiles).

Looking to 2017, we believe US and European AT1 securities offer two very different return profiles. The more orderly performance of US preferreds meant that they generally exhibited lower volatility than BBs this year. We expect this trend to continue in 2017, with US bank fundamentals remaining stable and supply technicals remaining favorable (Figure 2). We forecast total returns of around 5% which is slightly less than our forecast for BBs. The key risk to preferreds comes not from fundamentals but from rates. High risk-free yields could lead to higher volatility in the space. In general, spreads are wide enough to absorb the move in Treasury yields but parts of the market could come under pressure should a sell-off in Treasuries be more severe than we expect. We prefer shorter non-call preferreds, which appear better positioned to absorb a move higher in rates, given their lower interest rate duration and wider spread levels.

FIGURE 1

Bank AT1 capital has underperformed HY debt this year



Source: Barclays Research

FIGURE 2

2017 return forecast

	Amount Outstanding	Yield	Spread (bp)	2017 Ret. Forecast Excess	2017 Ret. Forecast Total
US bank Prefs*	$61bn	5.7%	385	3.5-4.5%	4.5-5.5%
USD AT1s	$67bn	8.1%	630	7-8%	8-9%
EUR AT1s	€31bn	8.1%	800	9.5-10.5%	9-10%

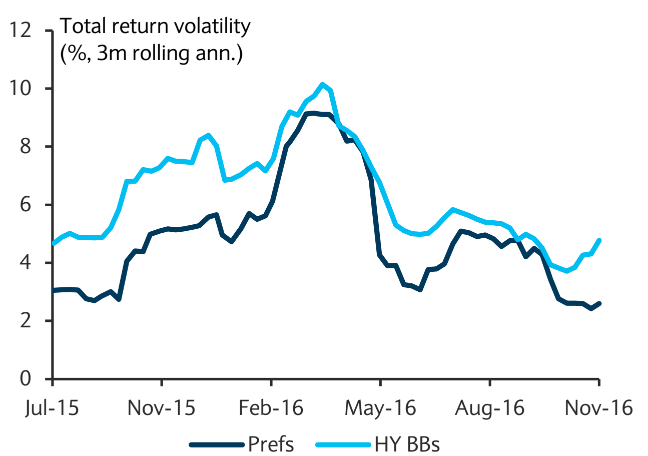
Note: *$1000-par securities only. Source: Bloomberg, Barclays Research

Unlike the preferred space, European AT1s have been much more volatile. Although they underperformed corporates markedly in 2016, we think the tables will turn in 2017, with AT1s set to outperform HY. Our base case sees 25-50bp of upside potential in CoCo spreads on small improvements in European inflation and growth, lower pressure on bank profitability as rates rise further, and on our expectation that the elections in major EU countries will preserve the *status quo*. Our total return forecast of about 9% is among the highest in the credit space (Figure 2). This should suggest a substantial overweight, but our optimism is tempered by the high volatility in the space. CoCos' high beta means that they have elevated exposure to any macro flare-up in risk, be it the result of a disruptive election outcome in the EU or a deterioration in one of the "story banks". Thus, we recommend a slightly defensive position in the space, avoiding the highest beta credits and focusing longs on mid-beta credits (eg, French bank AT1s).

European corporate hybrids have done surprisingly well in 2016, riding the coattails of the CSPP trade. We think the returns in 2017 are set to be lower. In our base case, we expect excess returns in the 3% range, assuming a mild improvement in European macro indicators, with a prospect of non-disruptive tapering in H2 17, and an assumption that the political events in the EU in 2017 will have moderate outcomes.

FIGURE 3

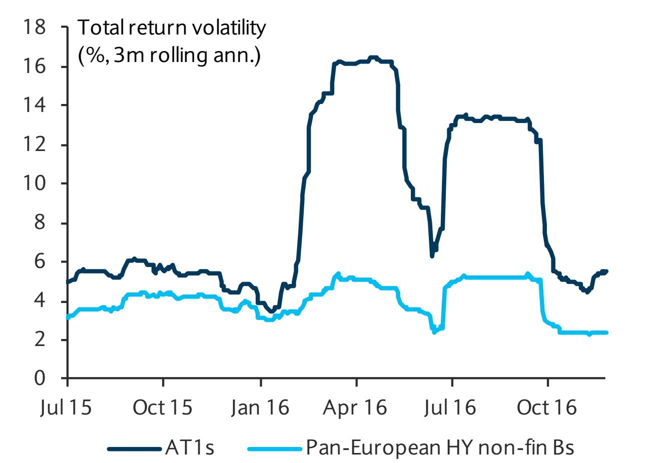
Preferreds vs HY BBs



Source: Barclays Research

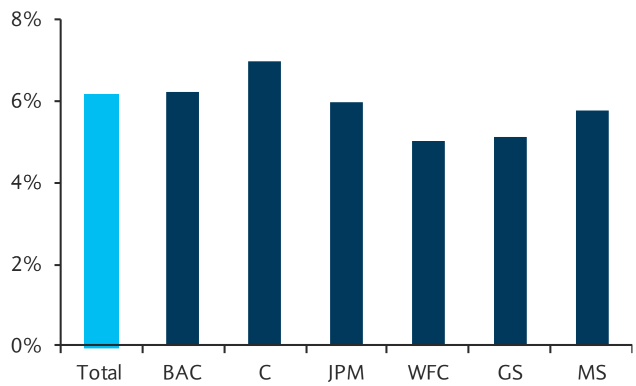
FIGURE 4

European AT1s vs European HY single-Bs



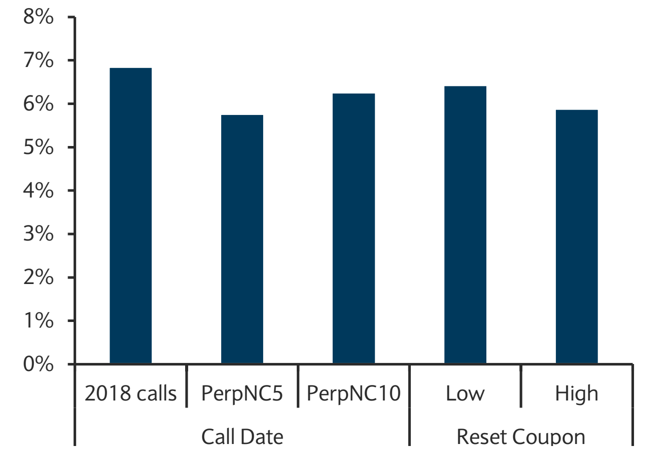
Source: Barclays Research

FIGURE 5
YTD preferred total returns by ticker



Source: Barclays Research

FIGURE 6
YTD preferred total returns by structure*



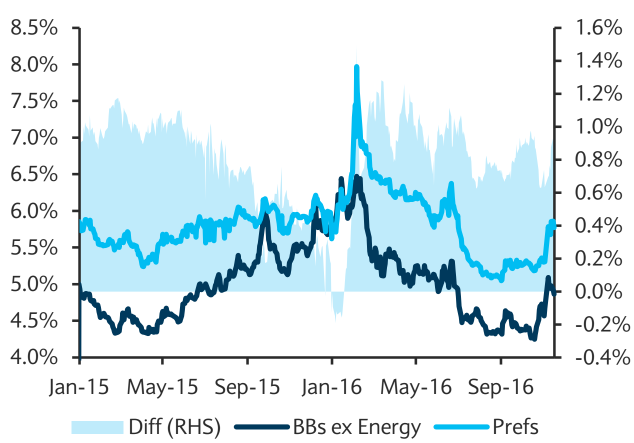
Note: *Low reset coupon securities defined as those with a backend spread of less than 375bp. Source: Barclays Research

US bank preferreds

Amid the broad-based rally in risk assets, institutional preferreds[8] ($1000 par) logged another year of strong performance, with 6.2% in total returns YTD. After a volatile start to the year, when preferred prices were down by as much as 8-9pts (YTD through mid-February), valuations recovered in line with the broader market. Citi preferreds generated the best returns (around 7%) given cheaper starting valuations; GS and WFC were at the lower end (*c*.5%). The 2018 call-preferred slightly outperformed the longer non-call securities, although there was little difference between the returns of high and low reset preferreds (Figures 5 and 6).

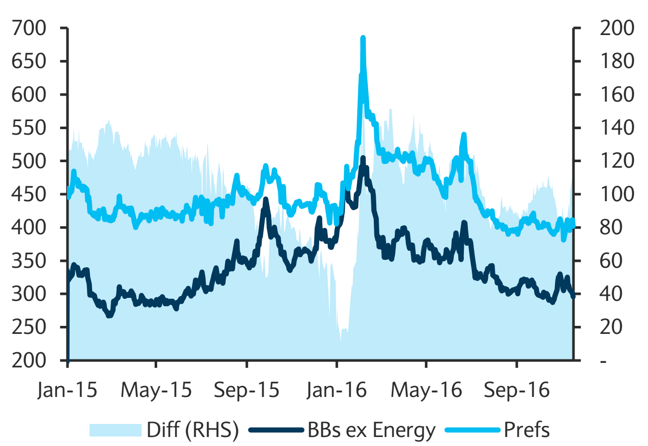
Despite strong returns, preferreds have lagged the rally in HY, which has returned more than 14% YTD. HY performance this year has been driven by lower-rated credits and energy debt but even BBs ex Energy (which is the more appropriate comparison in our view, given that most preferreds are BB/BBB rated) have returned more than 9%, outperforming preferreds. As a result, the yield basis between preferreds and HY has grown substantially – from close to flat at the start of the year to about 90bp now (preferreds trading wider). The basis now looks more in line with the historical relationship between the two asset classes (Figures 7 and 8).

FIGURE 7
Preferreds vs BBs (ex energy) yield



Source: Barclays Research

FIGURE 8
Preferreds vs BBs (ex energy) spread (bp)



Source: Barclays Research

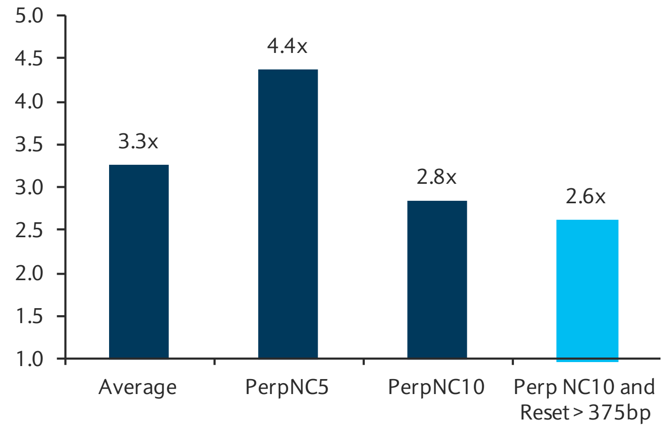
8 Unless otherwise specified, preferreds is used to mean institutional preferreds only.

FIGURE 9
Preferred valuations

	Price	Yield to Call	G-spread (bp)	Hybrid/Snr Spread Ratio
PerpNC5	$ 100.8	5.5%	407	4.4x
PerpNC10	$ 101.1	5.8%	375	2.8x

Source: Bloomberg, Barclays Research

FIGURE 10
Preferred/senior spread ratio



Source: Bloomberg, Barclays Research

2017 Outlook: Carry On

We expect preferreds to generate 4.5-5.5% in total returns in 2017, a little below the yield on the securities (Figure 9) and slightly inside our total return forecast for BBs. The fundamental backdrop for banks remains favourable, with strong asset quality and capitalization ratios still moving higher. The higher rates and steeper curves that we project in a Donald Trump administration should also help bank profitability. At the same time, supply technicals should remain favourable – we forecast $10-15bn of issuance next year, in line with levels this year.

Although the fundamental backdrop is strong and supply technicals should remain favourable, with preferred yields around 5.5-5.8% (Figure 9), we see little room for compression. Furthermore, we see some downside potential from a more exaggerated sell-off in Treasuries than our house view suggests. The hybrid/senior spread ratio still looks relatively wide in aggregate. Pricing to the first call date, we estimate the ratio is about 3.1x across the institutional preferreds of the money-center banks, which is much higher than our fair level estimate of 2-2.5x. However, the aggregate ratio masks the significant difference between PerpNC5 and PerpNC10 securities. At 4.4x, the hybrid/senior spread ratio for PerpNC5 securities is wide enough to absorb a move higher in risk-free yields.

The ratio for PerpNC10 is much lower, at 2.8x. More important, the aggregate preferred/senior spread ratio includes several lower reset preferreds, which face significant extension risk, in our view, and looking at spread to call is not appropriate. Indeed, the ratio for PerpNC10 securities with back-end coupons greater than 375bp is only about 2.6x (Figure 10), leaving little room to absorb any further move higher in rates, in our view.

Consequently, we believe PerpNC5s preferreds will generate higher total returns than longer non-call securities, despite the lower starting yield of the former. Figure 11 lists select PerpNC10 securities with the lowest preferred/senior ratio that we expect to be most vulnerable to a further sell-off in rates. We recommend swapping out of them and into the short-call high reset preferreds listed in Figure 12 trading at ratio of close to 4x. Not only do the swaps lower interest rate duration risk, we believe preferreds with higher preferred/senior spread ratios are better positioned to withstand a move higher in risk-free yields.

FIGURE 11

Move out of NC10s with low preferred/snr spread ratio …

Security	Call Date	Reset	Price	YTC	Pfd/Snr Spread Ratio
GS 5.3	Nov-26	L+383	$ 97.5	5.6%	2.3x
BAC 6.3	Mar-26	L+455.3	$ 105.8	5.5%	2.3x
C 6.25	Aug-26	L+451.7	$ 103.9	5.8%	2.5x
BAC 6.5	Oct-24	L+417.4	$ 105.0	5.7%	2.6x

Source: Barclays Research

FIGURE 12

… and into PerpNC5s with a higher spread ratio

Security	Call Date	Reset	Price	YTC	Pfd/Snr Spread Ratio
C 6.125	Nov-20	L+447.8	$ 103.4	5.2%	3.8x
GS 5.375	May-20	L+399.2	$ 99.4	5.6%	4.3x
JPM 5.3	May-20	L+380	$ 100.5	5.1%	4.5x
MS 5.55	Jul-20	L+381	$ 100.8	5.3%	4.1x

Source: Barclays Research

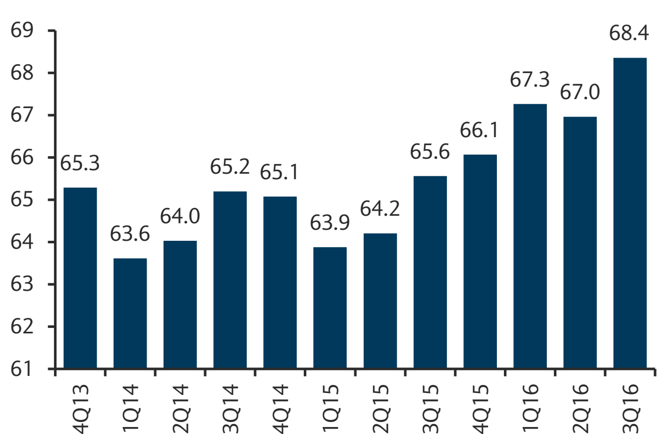
Fundamentals should remain strong even if regulatory backdrop changes

Bank fundamentals remain robust and should support preferred valuations. Banks reported strong 3Q16 earnings, with capital market revenues up 21% y/y and investment banking fees up 7% y/y. Net interest income also grew (Figure 13), driven by an increase average earning assets. Net interest margin (NIM) stayed under pressure in 3Q on low rates, but the rise in Treasury yields and steepening of the yield curve after Trump's victory in the presidential election should help NIMs. After deteriorating early in the year, asset quality has also improved since – nonperforming assets and net charge-offs both declined in 3Q. At the same time, capital continues to grow, with the aggregate fully phased-in CET1 ratio of 11.2% (Figure 14).

We remain overweight US banks, driven by strong asset quality, substantial liquidity, and still-improving capital positions, along with profitability expansion through 2017 (see *Sector Update* November18, 2016). Increased regulation following the 2008 credit crisis has been a key driver of bank fundamentals. Although there is a risk that parts of Dodd-Frank may be repealed under the Trump administration, we expect enhanced capital and liquidity regulation to remain in place (see *US Banks: Trump's 'Dismantling' of Dodd-Frank*, November 14 2016). This should continue to be supportive of valuations. Furthermore, bank spreads look relatively wide, trading only 10-15bp through industrials, compared with 70bp in February 2016. Any tightening in bank spreads should help preferreds, providing more room for preferred spreads to absorb a further move higher in risk-free yields.

FIGURE 13

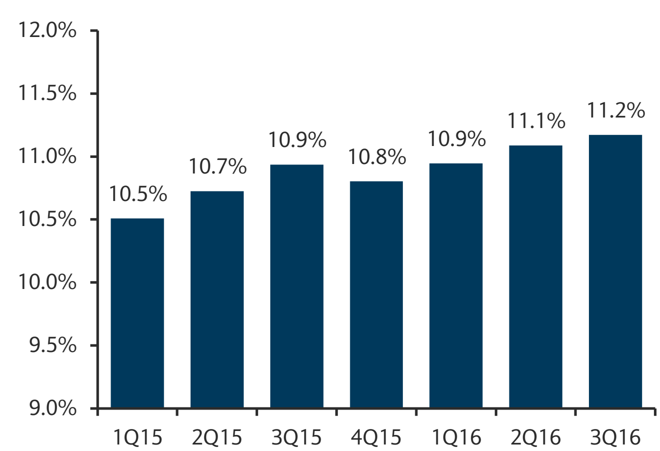
Net interest income, 25-bank aggregate ($bn)



Source: SNL, Barclays Research

FIGURE 14

Aggregate fully phased-in CET1 ratio



Source: SNL, Barclays Research

Supply: Expect another slow year

With the replacement of trust preferreds, following their loss of Tier 1 treatment under Basel III, with perpetual preferreds almost complete, issuance slowed meaningfully this year. YTD gross supply in preferreds ($25par and $1000par) is $13.5bn, in line with our $10-15bn forecast, and down nearly 50% y/y. Furthermore, more than half of the supply (about $7bn) this year came in the form of fixed-for-life retail preferreds. With rates remaining low for most of the year, issuer's preference for longer-duration securities was also evident in the institutional supply – all of the $1000par preferreds issued this year were PerpNC10s.

The total AT1 capital (as a percent of RWA) for money-center banks is now well in excess of the 1.5% AT1 bucket under risk-based capital rules. As discussed in *US Bank Preferreds: To 1.5% and Beyond*, a few factors have caused banks to issue preferreds beyond the allowed limit. These include the inflation of RWAs and assets under the Fed's stress tests as well as the transitional nature of capital rules used for CCAR. However, Fed Board Governor Daniel Tarullo has called for changes to the annual CCAR stress tests, including using constant (rather than inflated) RWAs. This change should relieve the pressure on preferred issuance in future CCARs. With the money-center banks now running with an AT1 capital base well in excess of the 1.5% standards, we believe there is limited need for the capital base to grow further.

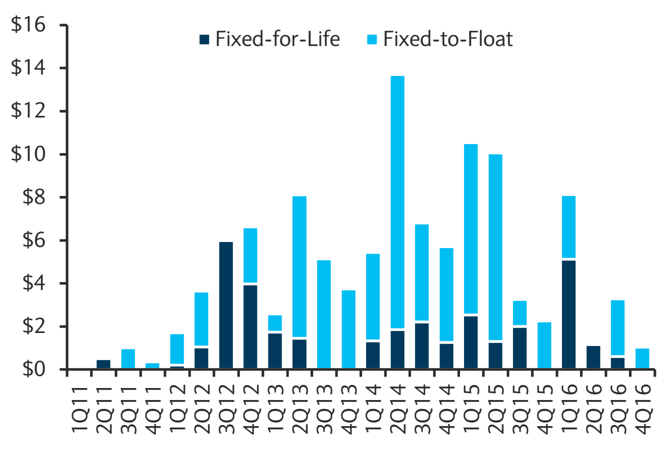
Regional banks have run with preferreds below the 1.5% requirement as they have not been able to return capital fast enough to common shareholders to justify the expense of raising incremental preferreds. However, a recent NPR would remove the qualitative assessment in CCAR for banks below $250bn in assets. Along with potential legislative change that could increase the size limit for banks required to participate in CCAR, this could result in increased preferred issuance from regional banks that have not yet reached 1.5% of RWAs.

In light of the limited need to grow AT1 capital buffers, we forecast another slow year for preferred supply. Specifically, we forecast issuance of $10-15bn next year, largely to fund 2017 redemptions and the potential need to refund deals callable in 2018.

1. The outcome of the nearly $12bn of the 2008-vintage institutional preferred deals (JPM 7.9s, WFC 7.98s, BAC 8s and 8.125s) which first become callable in early 2018 remains unclear. However, if issuers decide to redeem them on the first call dates, we would expect them to pre-fund at least part of it in 2017.

FIGURE 15

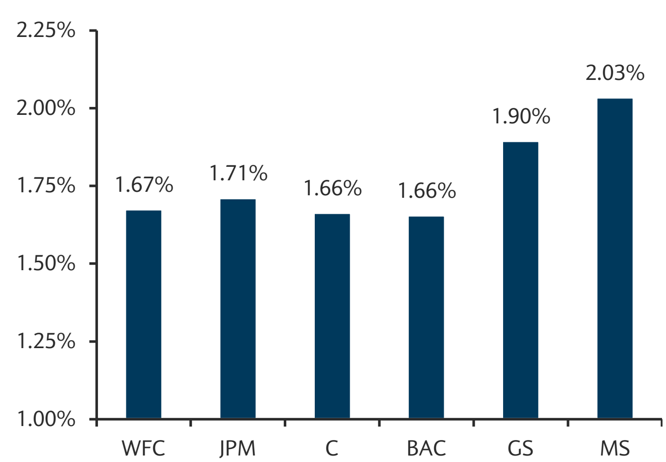
Institutional and retail preferred supply ($bn)



Source: Bloomberg, Barclays Research

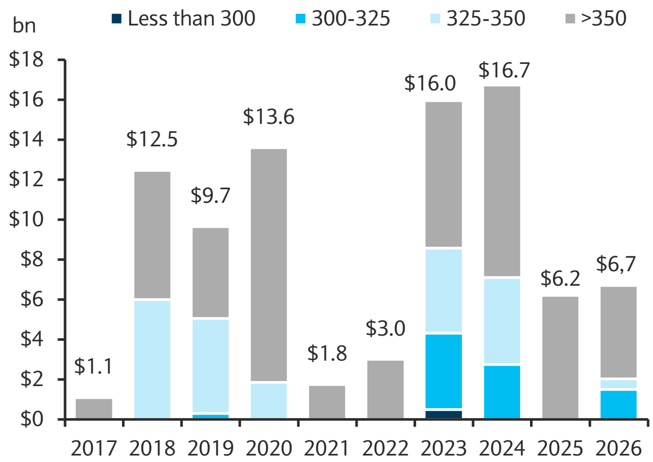
FIGURE 16

AT1s as a percent of RWAs



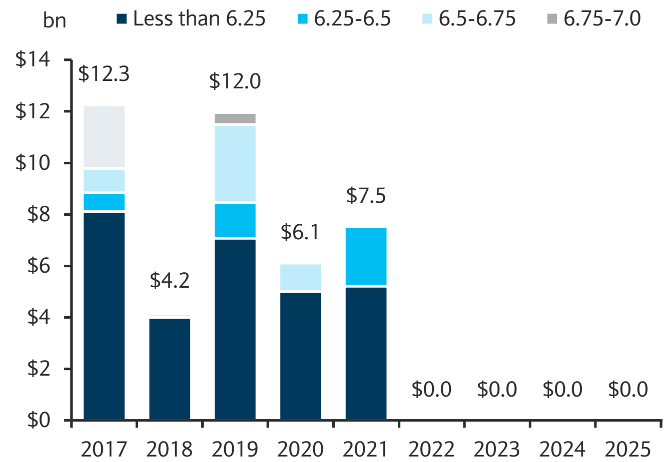
Source: SNL, Barclays Research

FIGURE 17
Fixed-to-float preferreds call schedule



Source: Bloomberg, Barclays Research

FIGURE 18
Fixed rate preferreds call schedule



Source: Bloomberg, Barclays Research

2. More than $12bn of retail preferreds first become callable in 2017. However, nearly 70% of these securities pay a coupon of less than 6.25% and are unlikely to be called, in our view, especially in light of the recent sell-off in Treasury yields. We think issuers may look to redeem a few higher-coupon securities.

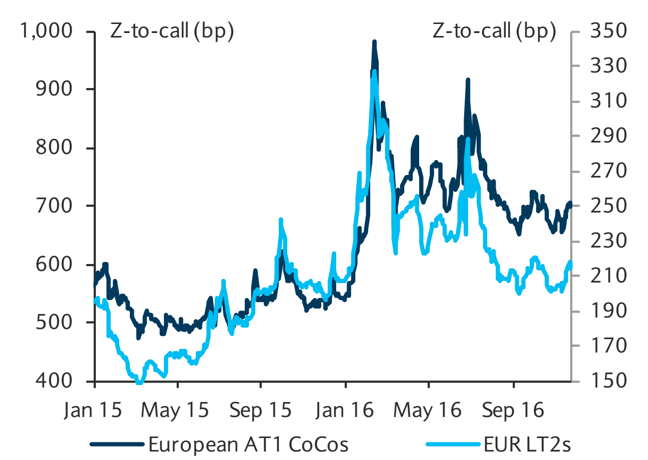
European bank capital

Performance in 2016 – whipsawed by micro and macro

European bank capital underperformed in 2016, with most damage inflicted during the Q1 sell-off (Figure 19). The sell-off was triggered by a combination of factors: rates exploring ever lower lows which put further pressure on bank profitability; re-pricing of DB risk; continuing uncertainty around the capital cushions to MDA triggers; oil-driven sell-off in US HY spilling over to Europe and rising concerns about a slowdown in US economic growth.

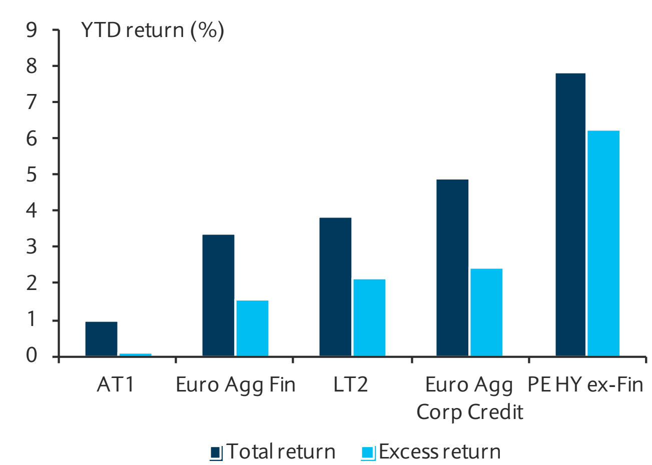
After only a partial recovery on the back of the ECB's CSPP announcement in March, the sector has remained volatile against a backdrop of falling rates and a seemingly endless chain of risk events, including the Brexit vote, the Italian NPL saga and DB's litigation story.

FIGURE 19
AT1s and LT2s – spread performance



Source: Barclays Research

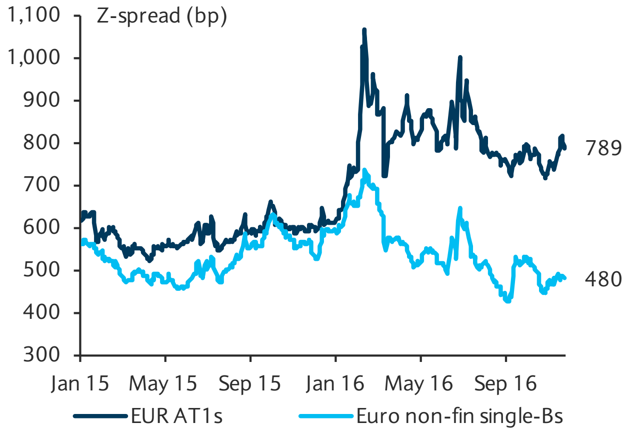
FIGURE 20
2016 returns in bank capital and other credit sectors



Note: We show EUR-hedged returns for European AT1s. Source: Barclays Research

FIGURE 21

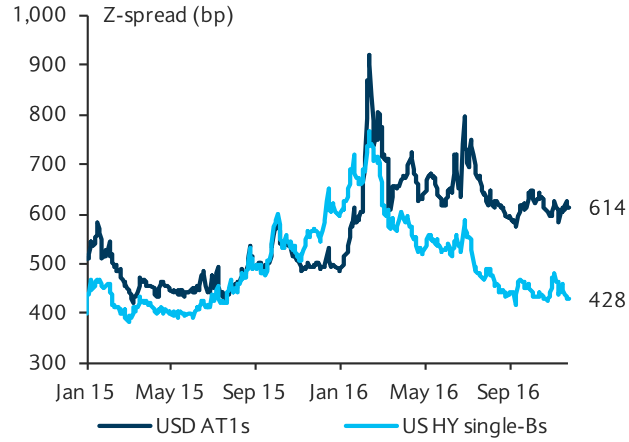
EUR AT1s vs Pan-European non-financial single-Bs



Source: Barclays Research

FIGURE 22

USD AT1s vs US non-financial single-Bs



Source: Barclays Research

In turn, YTD total returns in AT1s have been particularly disappointing, at 1%. LT2s have performed more in line with expectations, delivering a total return of *c.*4% on a stronger recovery in spreads and a higher sensitivity to the move lower in rates this year (Figure 20).

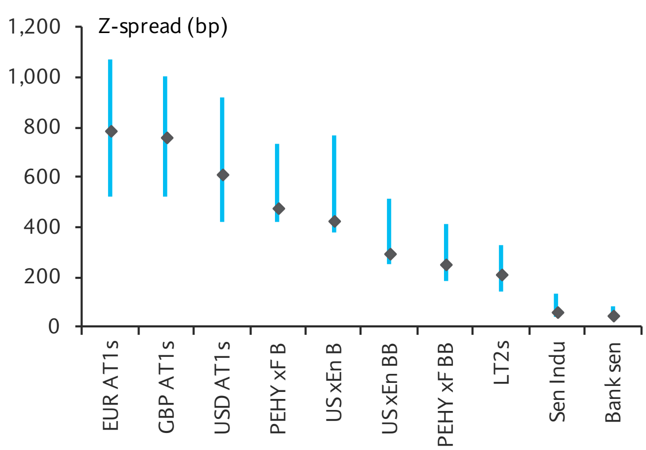
Relative value – the biggest laggard in European credit

AT1s now trade cheap versus other asset classes. Indeed, EUR AT1s currently trade, on average, *c.*180bp wider than end-2015 levels and *c.*300bp wider than European non-financial single-Bs (Figure 21). In USD AT1s, the dislocation has been smaller, but still looks fairly extreme: USD AT1s are *c.*120bp wide versus end-2015 levels and trade with a *c.*200bp gap versus US HY single-Bs (Figure 22). Unsurprisingly, AT1s are the only major sector in European credit not trading near two-year tights (Figure 23).

LT2 performance was better than that of AT1s in the months after the Q1 sell-off, as the sector managed to recover *c.*85% of the initial widening. Yet the asset class still looks wide in its historical range compared with the other credit sectors (Figure 23). In particular, we think that LT2s trade roughly 20-30bp wide versus non-financial BBs based on the long-term historical relationship (Figure 24). The bottom line is that, although LT2s have lagged corporate and bank senior debt, the sector has much less catching up to do than AT1s.

FIGURE 23

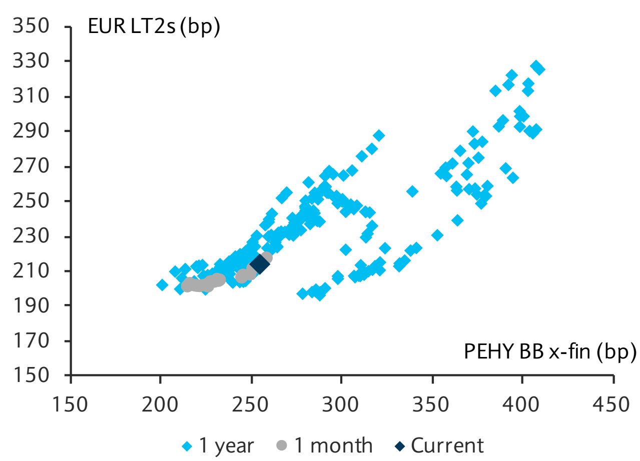
Spread ranges in bank capital and major comp sectors



Note: 24-month spread ranges. Source: Barclays Research

FIGURE 24

EUR LT2s vs non-financial BBs



Source: Barclays Research

AT1 spreads look wide versus LT2s

One way to think about the value in AT1s is from a structural fair value perspective. On this basis, the spread should compensate the investor for structural risks: extension to perpetuity, coupon cancellation and bail-in/CoCo trigger. Figure 25 shows a rough calculation of the total spread required to compensate for these risks under – in our opinion - very conservative assumptions about the likelihood of and potential losses in the key downside scenarios (conservative in terms of probabilities and expected losses assumed, but also in that the probabilities shown are "unconditional," ie, the probabilities should be lower if the events were conditional on other events not occurring). Under these assumptions, the total compensation for credit risk in AT1s should be 660bp. Meanwhile, EUR AT1s are trading at a spread of 800bp, indicating that EUR AT1s are pricing in a large additional risk premium relative to LT2s.

FIGURE 25

A very wide margin of safety

Risk	Probability of an event over the next 5 years	Expected loss	Required spread compensation	Comment
Extension to perpetuity	60%	15pts	180bp	20% of AT1s have reset spreads trading inside 2x the corresponding sub CDS spread – a level which to us indicates an elevated risk of extension. If we assume that AT1s below the threshold have an 80% probability of extension and the remaining bonds 20%, the total expected share of AT1s that could be called is 33% - well below the 60% assumed in this calculation. An average AT1 price drops by 15pts if spread to perp widens by 100bp (in line with the recent widening in STANLN 6.409).
Coupon cancellation	30%	30pts	180bp	During the 2008-09 crisis coupon skips typically lasted 2-3 years. With an average coupon of 7% in AT1s this would equate to a 14-21pt loss. By taking 30pts we assume a very wide margin of error.
Bail-in/CoCo trigger	15%	100pts	300bp	LT2 spread of 220bp implies *c.*15% probability of default (at 20% recovery rate). The loss in default for CoCos should be ~100%.
Total	-	-	**660bp**	

Note: Required spread compensation expressed on an annualized basis and calculated as [Probability] * [Expected Loss] / 5. Source: Barclays Research

On the other hand, USD AT1s trade with an average spread of *c.*610bp – almost 200bp tighter than EURs. In fact, the current EUR-USD AT1 spread differential is close to historical highs (in the past three years, the average EUR-USD spread differential has traded in the 50-100bp range). Clearly, from a fair value perspective, the large spread differential in EUR and USD AT1s does not make sense, especially as European bank USD-denominated LT2s tend to trade wider than EUR LT2s.

However, many investors in the asset class are yield-focused and, given the recent sharp decompression in USD versus EUR rates, despite tighter spreads, USD CoCos yield the same as EUR securities. Furthermore, many USD AT1 investors look at the US HY market for reference and, as Figure 22 shows, the spread differential between USD CoCos and Bs remains very wide from a historical perspective.

Looking under the hood

While AT1s are very wide optically, the valuations appear slightly less unreasonable when we look "under the hood" and consider the valuations by jurisdiction in the context of recent fundamental themes. Figure 26 shows two-year spread ranges for AT1s split by country group, where the grouping is based on similarity in terms of historical price correlations and underlying fundamental themes. For example, we group the French/Benelux banks together, given their similar fundamental backdrop and price dynamics, but we separate out UK banks, given that their performance has been dominated by the Brexit theme.

- Scandinavian banks are the closest to the tight end of their spread range and. as we discussed in *European Hybrids: Priced to perfection*, 2 September 2016, theirs are among the AT1s that in our opinion look rich. Swiss and French/Benelux are still *c.*30% away from the bottom of the range, and this is a group where we still see value in AT1s.

- At the other extreme, DB, as the sole German bank with AT1s outstanding, has been trading very wide on the back of uncertainty about litigation and elevated coupon cancellation risk (due to very low ADIs).
- In the middle of the spread range are UK AT1s, the result of Brexit uncertainty (we estimate a Brexit premium of *c.*100bp in both EUR and USD AT1s), and Spanish AT1s, driven by exposures to EM and their peripheral nature. Italian banks are also in the middle of the range, driven by the uncertainty about the NPL overhang and recapitalizations at Monte and Unicredit.

We estimate that should UK, Italian, Spanish and German AT1s tighten to levels consistent with French and Benelux banks, the average AT1 spread would be *c.*85bp tighter. Clearly, the performance of these wide trading AT1s will be an important driver of the overall performance. However, even without this 85bp "story premium", AT1s are still very wide, trading 150bp wide versus non-financial single-Bs.

2017 forecast

CoCo spreads are wide historically (especially, in relation to corporates) and appear attractive from a fair value perspective, even taking into account that a good part of the cheapness stems from the weakness in "story banks". Furthermore, positioning has likely improved and sentiment toward the asset class remains far from bullish, as the difference between the number of CoCo buyers and sellers remains close to historical lows (Figure 27). Supply is more likely to be driven by valuations than the other way around. Finally, fundamentals generally remain solid, with an upside from a potential further move higher in rates next year. Overall, this makes for an attractive set-up for performance in 2017.

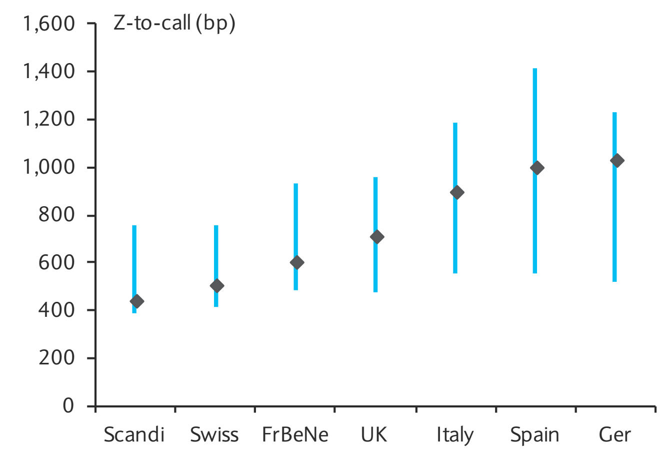
That said, potential outcomes vary widely depending primarily on the path of European macro indicators and politics. The outlook is additionally complicated by the idiosyncratic stories, including the recapitalisation of Italian banks and Deutsche Bank's woes.

The base case

In our base case, we assume that the ECB remains highly accommodative through H1 2017 as it awaits clear signs of a pick-up in inflation, but also as a precaution in case of potentially disruptive election results in some of the major EU countries. For now, our base case for the political events in Europe looks for moderate results. As we move into H2 17, the focus is likely to shift again toward the potential tapering of the QE and a rise in rates.

FIGURE 26

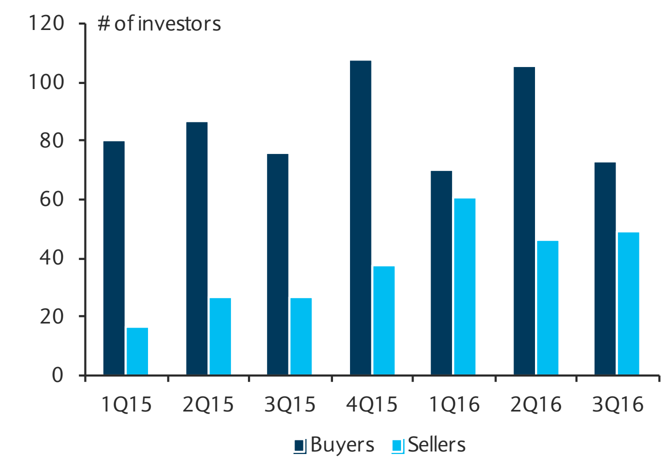
AT1s spread ranges by country group



Note: 24-month spread ranges. Source: Barclays Research

FIGURE 27

"Buying breadth" in AT1s



Source: Bloomberg, Barclays Research

A non-disruptive rise in European rates (which could occur if tapering is viewed as premature or if the elections in Europe turn out to be disruptive) is likely to be perceived as positive for European bank fundamentals as it would reduce pressure on net interest margins. The scale of the tailwind for profitability would depend on the extent to which rising rates are coupled with a pick-up in growth, which ultimately drives volumes and asset quality. We think that AT1 spreads are wide enough to absorb such a benign move in rates.

In this scenario, we believe there would be a generic compression in AT1 spreads – to the tune of 50bp in EUR AT1s and 25bp in USD AT1s (given they trade tight to EUR AT1s). In total return terms these projections imply a 9-10% range for EUR AT1s and 8-9% for USD AT1s (Figure 28). The tightening would bring AT1 valuations closer to levels that better reflect long-term fair value, and that are more in line with the historical basis versus non-financial single-B corporates (note that we forecast *c.*100bp of widening in non-financial single-Bs in our base case for 2017). However, we expect the "story bank AT1s" to continue to trade with a material spread premium versus the rest of the space.

We think that in this base case scenario LT2s are more likely to follow our IG credit forecasts and we would see the LT2 spreads staying roughly flat.

FIGURE 28

Baseline return expectations for European bank capital

		Current levels*		2017 forecast			
		Z-to-call	Yield-to-call	Spread	Yield	Excess return	Total return**
AT1s	EUR	800bp	8.1%	750bp	7.7%	9.5-10.5%	9-10%
	USD	630bp	8.1%	605bp	8.0%	7-8%	8-9%
LT2s	EUR	220bp	2.8%	220bp	2.9%	1.75-2.75%	2-3%

Note: *Current levels as of 24 November 2016. Average durations: EUR AT1s - 3.5; USD AT1s - 4.3; EUR LT2s – 4.3. **Total return projections are based on Barclays Interest Rates Strategy projections and assume 10bp increase in 5-year EUR swap rate and a 20bp increase in 5-year USD swap rate. Source: Barclays Research

The positive case

A key reason why European AT1s trade very wide versus corporates is that a number of "story banks" have underperformed much more meaningfully than the broader banking sector. Should these "story AT1s" compress to where French and Benelux AT1s are currently trading, the average AT1 spread would, in our positive scenario, tighten by 85bp.

In our positive case we expect that, in addition to improving macro and political backdrop described in our base case, the idiosyncratic stories also improve, leading to a compression in the "story bank" risk premiums. Assuming that the basis between the high beta AT1s and French/Benelux banks (85bp) compressed roughly by half, the average AT1 spread would tighten by an additional 50bp.

The ways it could go wrong

Our base case could go wrong in a number of ways and in each case the probability, size and permanence of the downside varies widely.

- **European politics.** The biggest potential downside to our view lies in European politics, with the recent populist wins in the UK and the US opening up the possibility of a surprise anti-establishment vote in one of the major European elections in 2017 (France, Germany, the Netherlands). An anti-establishment vote in one of the core countries (in France, in particular), would in our view be particularly negative for markets as it would be viewed as a threat to the integrity of the currency union.

- **DB litigation bill.** Deutsche Bank is still awaiting a decision on the final settlement with the US Department of Justice. A key question concerns the capital shortfall that the fine could potentially create in the context of a weak equity story. Any problems with a potential DB recapitalisation would be viewed as a threat to the broader European banking sector. Additionally, DB AT1s face a risk of coupon cancellation due to low ADI levels, although this potential event on its own would be unlikely to create meaningful contagion in the AT1 sector. For details, see *Deutsche Bank: Testing times,* 28 September 2016.
- **Italian bank recapitalisation.** Italian banks have been under pressure throughout 2016 because of the sector's low capitalisation relative to its high NPL burden and weak provisioning levels. Two of the major banks, Monte and Unicredit, are in the process of preparing capital plans. A failure to raise capital or appease investor concerns around capital adequacy could put the whole Italian banking sector and the sovereign under significant pressure. It would also be interpreted as a negative signal for other European banks facing capital challenges.
- **Disappointing macro.** Absent a fiscal stimulus in Europe, the risk is that inflation does not increase and that the ECB may be forced once again to increase the stimulus to offset the recent tightening in financial conditions. The bull flattening in rates that would likely ensue would put pressure back on bank profitability.

Furthermore, many of these risk factors are correlated (eg, a disruption in European politics is likely to be bad for Italian banks, DB's capital woes and European macro), meaning that the likelihood that it all goes wrong at the same time is material. In the bear case, a structural widening of 200bp in AT1s is possible in our view, leading to excess returns near zero.

Positioning themes

Despite their potential volatility and downside, we think CoCos' wide starting spreads/yields signal significant upside potential in this space. Our forecast total returns are in fact the highest in the credit universe. As a result, we recommend a market weight to a slight overweight allocation to AT1s. We recommend implementing that view by sticking with the themes that we have been advocating throughout 2016:

- Buy bonds with strong structures – short-calls with high reset spreads.
- CoCos issued by banks with reasonably strong fundamentals that still offer attractive relative value also appear attractive – French AT1s are an example.
- Sell Scandi AT1s, as they are trading too tight. Furthermore, they have low reset coupons that expose them to significant extension risk.

Supply – a balancing factor

On the supply front, we forecast €25-30bn of new AT1 issuance next year as a base case, on the grounds that European banks would aim to fill in their overall €54bn AT1 shortfall before 2019 (when the Basel 3 requirements get fully phased in), with around half of it completed in 2017. However, the actual supply will depend on the market conditions and will ultimately act as a technical safety valve for the valuations, with supply likely to come in below the forecast if spreads and volatility remain elevated.

In LT2s, we expect €30-35bn in gross issuance, but only €5bn in net supply, given that banks are now near their optimal LT2 bucket sizes. The limited net supply reduces the potential pressure on valuations. For more details on our hybrid supply expectations, see *2017 supply: In search of optimal capital structures*, 18 November 2016.

Fundamentals – strong balance sheets, but weak profitability

The volatility in bank capital in 2016 has emerged against a backdrop of relatively resilient fundamentals. Capital is generally strong across the sector (average fully loaded CET1 ratios exceed 12%) and asset quality remains by and large stable. However, profitability is weak as a result of NIMs being pressured by low rates and weak volumes amid lacklustre growth. In addition, a number of large systemic banks remain under pressure from ongoing litigation charges. Some have significant exposures to EM at a time when EM is under pressure from rising USD and potential anti-trade policies in the US. The Spanish banks, most notably BBVA, but also Santander, have underperformed their banking peer group since the US elections because of their Mexican and broader LatAm exposure. Finally, the fundamental outlook for UK banks continues to depend on the highly uncertain course of Brexit negotiations.

Corporate hybrids

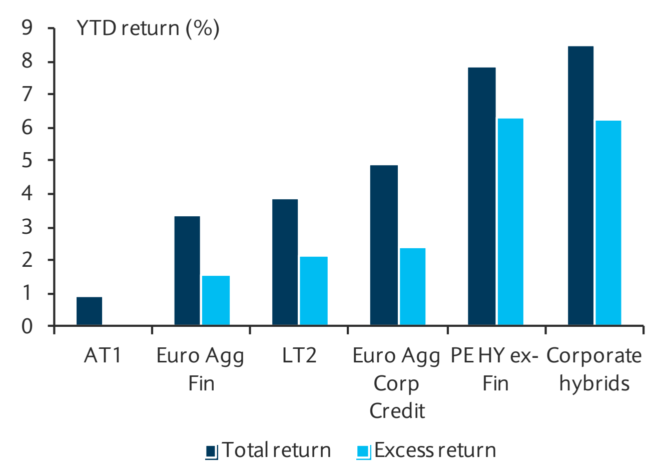
Performance in 2016 – riding the CSPP coattails

Corporate hybrids performed very well this year with excess return near 6% and returns overall similar to the Pan-European HY Ex-Financials index (Figure 29). However, the path to that outcome was bumpy. As expected, the sector kicked off the year with another round of sell-off, following the weakness seen in late 2015, as the oil rout intensified in Q1 2016.

The ECB's March CSPP announcement changed the outlook completely. Although hybrids were not directly in the scope of the purchases, it has been one of the asset classes that were best suited to receive part of the fund flows sparked by the purchase program. Our hybrids "ex-story" composite has rallied from an average spread of 500bp in March all the way down to 250bp in September, following very closely the Barclays/Bloomberg EUR HY Ex-Financials BB index (Figure 30).

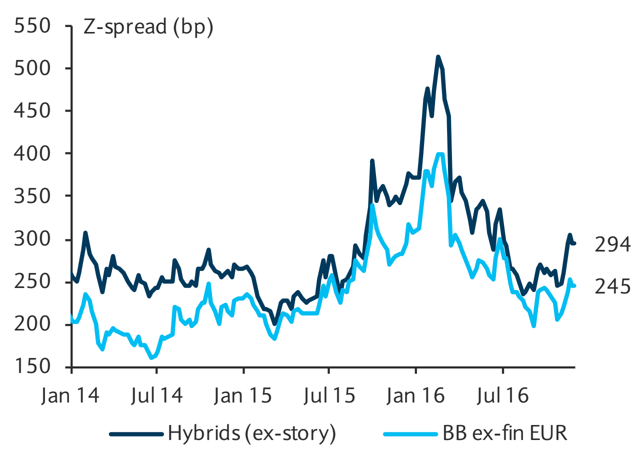
Hybrids have widened recently as European credit threw a mild tantrum in the wake of the post-Trump rates sell-off and the rising worries about political risk in Europe. The average hybrid ex-story spread widened by almost 50bp in absolute terms and decompressed by 40bp versus matched senior spreads since Trump's win (Figure 31). Notably, there has not been anything hybrid-specific in this sell-off – the sector has continued to trade roughly in line with BBs and has been correlated to the moves in the underlying senior spreads.

FIGURE 29
YTD total returns in corporate hybrids and peer sectors



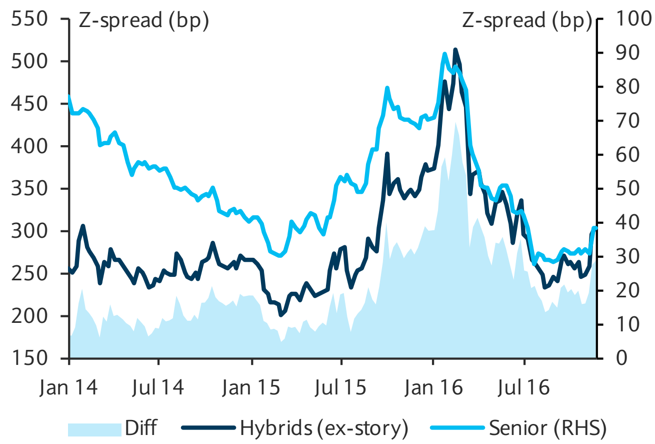
Source: Barclays Research

FIGURE 30
Corporate hybrids (ex-"story names") vs BB non-financials



Source: Barclays Research

FIGURE 31
Corporate hybrids vs matched senior debt



Source: Barclays Research

FIGURE 32
Long calls vs. short calls

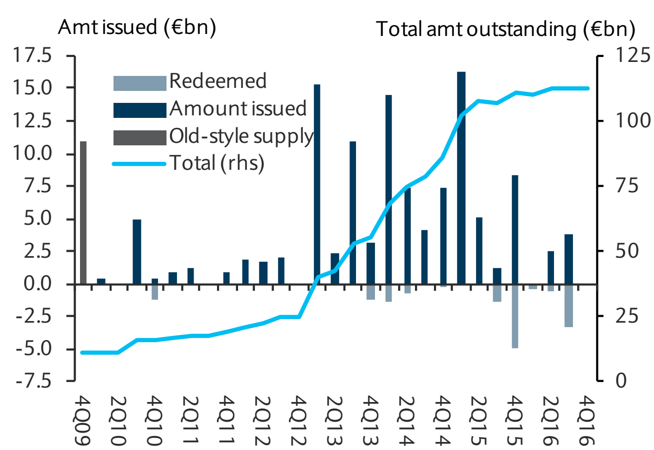
Source: Barclays Research

Supply – cornered by hybrid economics

We forecast a slight pick-up in gross hybrid supply to the €10-15bn range in 2017, driven by €5-10bn of "new money" hybrids coming to market and *c*.5bn in refinancing. Low supply has been an important part of the positive story in hybrids in 2016 (Figure 33). The weakness was driven by poor market conditions in Q1, followed by a large compression in senior spreads in Q2 onward, which weighed heavily on the economics of issuing hybrids from the corporates' perspective (Figure 34).

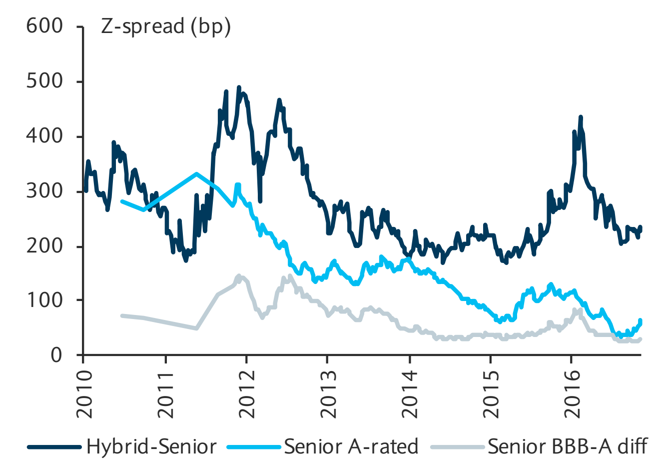
Looking to 2017, we see no shortage of companies that are likely to come under rating pressure. However, for hybrid supply to increase meaningfully from subdued 2016 levels will also require a combination of: 1) hybrid-senior spread differential remaining stable around current levels; and 2) some widening in senior spreads to justify the cost of issuing hybrids. We think that this would be the case in a benign scenario whereby the ECB starts to gradually taper its QE programme on the back of improving growth and increasing inflation next year. On the other hand, we doubt that hybrid issuance would increase if the CSPP continues to keep senior spreads compressed or if the widening in senior spreads is driven by a major market sell-off (eg, on the back of another populist vote in one of the major EU countries).

FIGURE 33
Corporate hybrid supply



Source: Barclays Research

FIGURE 34
Cost of hybrid funding versus senior funding



Source: Barclays Research

As for redemptions, *c.*€7bn of hybrids are coming up for first calls in 2017 (after which they lose equity treatment). Given that many of these are issued by utility companies that have not improved their credit profiles recently, we would expect a large share of the 2017 calls to be replaced with new hybrids.

2017 forecast – too tight for comfort, too wide to look away

As 2017 looms, hybrids are trading at 300bp. This is tighter than at this time last year, both in absolute terms (40bp tighter) and relative to senior spreads (10bp compression). That said, the widening of spreads since August has created some breathing space.

The fundamental and technical backdrop is also materially better than in late 2015. Oil prices have recovered, while US growth prospects also appear to have improved, especially after the presidential elections. In addition, the asset class continues to benefit from the demand created by the ECB. The stability of this demand technical in the context of European macro outlook and political risks will be the key to performance in 2017.

The base case

Our base case assumes that the ECB remains highly accommodative through H1 2017 as it awaits clear signs of a pick-up in inflation, but also as a precautionary measure in the context of potentially disruptive election results in some major EU countries. Uncertainty with regard to key votes should keep a floor under spreads, with pressure more likely to affect peripheral issuers, but we think the most likely outcome is that the elections produce moderate results.

As we move into H2 2017, the focus should shift towards the potential tapering of the QE and a rise in rates amid a small pick-up in inflation. In this scenario, we would expect to see pressure on spreads from unwinding of the CSPP trade and a mild pick-up in supply, but its effect would likely be offset by the pricing out of the political risk premium (we assume that ECB tapering is conditional on a benign outcome on the political front). In this scenario, we see corporate hybrid spreads as roughly flat (Figure 35).

FIGURE 35

Return expectations for European corporate hybrids

		Spread forecast			
	Current levels*	Baseline	Upside	Downside	Baseline excess return
Corporate hybrids*	295bp	295bp	275bp	370bp	2.5-3.5%

Note: * For the purposes of our projection we excluded the "story" hybrids (COFP, EDF, ORGAU, REPSM, RWE, STOAU). In the Source: Barclays Research

The upside scenario

A positive scenario relative to our base case would be an unexpectedly strong pick-up in growth, such that the positive effect of improved macro outlook would more than offset the effect of ECB tapering (that would likely ensue in this scenario), leading to a mild tightening. On the other hand, we think that a mild disappointment on the macro front (eg, inflation remaining low), would likely force the ECB to stay accommodative beyond 2017. We think this would likely be positive for hybrid spreads as markets refocus on the ECB technical once more (until that focus morphs into questions about the effectiveness of the QE again).

The downside scenario

The main known downside risk to hybrids is an anti-establishment vote in one of the major EU countries which would likely drive the political premium wider and which could be extrapolated by the markets into a threat to the integrity of the EU and the currency union. In addition, given how the valuations benefitted from the ECB technical in 2016, any unexpected rise in rates or premature move towards tapering could lead to a tantrum similar to the one seen following Trump's election in the US and to the Bund crash in Q2 '15. In a downside scenario we see plenty of room for widening and, in line with our forecast for HY BBs, we assume that spreads could move out by 75bp to 370bp.

Positioning – Prefer short-calls over long-calls

We expect hybrid spreads to return *c*.3% in excess return in our base case, with risks skewed to the downside. In that context, we continue to prefer short-call hybrids versus long-calls, at least until more clarity emerges on which of our scenarios is more likely to play out (see *Corporate hybrids: Uneasy pickings*, 5 August 2016). Short-call trade with an average spread of z+195bp and in our opinion the vast majority of the bonds are highly likely to be redeemed before or on the first call dates – the variability around the expected 2% excess return in this part of the curve should be very low, in contrast to long-calls, were the average spread at 325bp offers limited cushion against widening.

Asia Credit Strategy

ASIA CREDIT STRATEGY

Tug-of-war between regional and global factors

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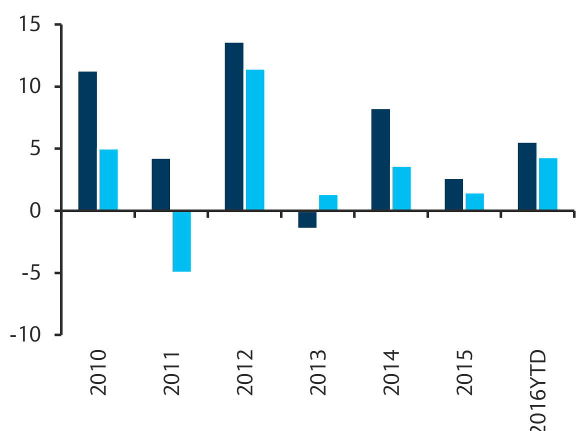
- **We forecast that Asia credit will post an excess return of 100-120bp and a total return of 2.0-2.5% in 2017. We estimate that Asia IG will widen slightly (about 10bp) while Asia HY will be driven by idiosyncratic factors. Expected moves higher in US rates and developments in China (policy, politics and outward flow of funds) are likely to be the key drivers of Asia credit in 2017.**
- **In high grade, we recommend higher-than-benchmark positions in Indonesia, India and China credit; while in high yield we have Overweight sector rating on Indonesian corporates. We recommend the BBB and BB rated segments to beat index returns.**
- **We expect a flattening in the Asia ex-China 10s30s curve, driven by insurance sector purchasing of long-end bonds. On the other hand, we expect Chinese demand to favour 5-7y tenors leading to a steepening of curves in Chinese credit segments.**
- **We expect around USD160-170bn of gross USD-denominated bond issuance in 2017 in Asia credit. Notably, nearly 15% of outstanding bonds in Asia are set to mature next year. This is likely to provide a strong technical backdrop for the market.**
- **Once again we expect in-region demand (China, Taiwan and regional commercial banks) to be a strong demand technical for Asia credit, which should aid in the absorption of gross issuance. We expect Chinese investors (dominated by banks) to purchase at least USD30bn of bonds (mainly China credit). Demand from Taiwan and Japan is likely to be broadly flat y/y, in our view, at around USD10bn.**
- **We believe pressure on China's sovereign rating is set to rise and could lead to a one-notch downgrade over the next 12-18 months. Over the next five years, we expect China's sovereign ratings to settle at least two notches lower, at A2/A.**
- **We think 2-3 high yield corporate issuers in Asia could default in the next year, implying a par-weighted default rate of 1.2% and an issuer-weighted default rate of 2.0%. We think the relatively low default rates in the region reflect a general unwillingness among Asian companies to default.**

FIGURE 1
Asia credit returns (%)



Source: Bloomberg, Barclays Research

FIGURE 2
Asia credit HG and HY returns (bp)

	Total Return		
	Asia	IG	HY
2015	267	220	472
2016YTD	557	444	1085
2017F	200-250	200-250	350-400
	Excess Return		
	Asia	IG	HY
2015	149	104	341
2016YTD	435	320	974
2017F	100-120	~100	250-300

Source: Bloomberg, Barclays Research

Carry returns for 2017

The Asia Credit Index has tightened 49bp year-to-date[9] – from 249 to 200bp – generating a total return of 5.6% (excess returns of 435bp). Indonesia sovereign/quasi-sovereign have outperformed while India credit and the Philippines' sovereign/quasi-sovereign have lagged in high grade. In high yield, bonds of Indonesian coal companies have generated the bulk of the returns while Philippine corporates, China property and sovereigns/quasi-sovereigns have underperformed. Accommodative central bank policies and improving China macro data amid intensified fiscal efforts and diminished risk of an 'accident' have all contributed to boosting risk sentiment and encouraging investors to put money to work.

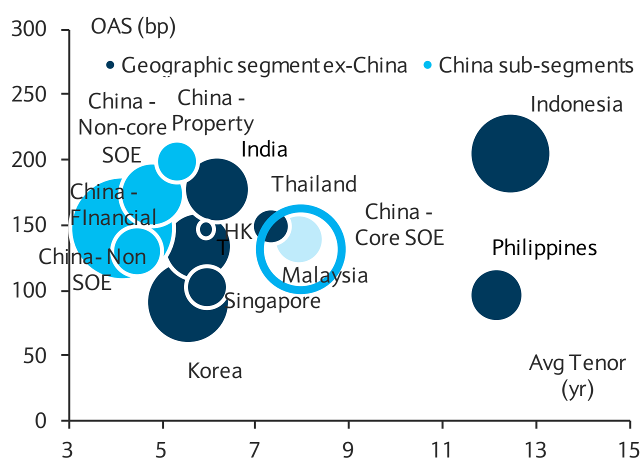
Fed normalisation appears to be finally here after years of false starts

After several years of anticipation and false starts, the market seems to be preparing for a Fed normalisation in 2017 – pricing in a pick-up in US inflation; stronger growth supported by Trump's fiscal policy; and continued improvements in the US labour market. These factors points to potential rises in US rates and a steepening of curves and consequent impact on Asian credit spreads. In 2013, we feared that a Fed normalisation could prove disruptive for countries – India, Malaysia, Indonesia – that had benefited disproportionately from the easy liquidity environment of prior years if policymakers were unable to control expected fund outflows. In 2013 we saw several implications from a slowdown in fund flows from Global/EM investors to EM/Asia credit – more challenging environment for segments accustomed to ample liquidity/low funding costs; tighter liquidity to have an impact on corporate balance sheets due to higher borrowing/financing costs – that could have ultimately driven a re-pricing of the EM Asia risk premium for global investors (see *Asia Credit Strategy - EM flow normalisation and Asia: India vs Indonesia*, 9 October 2013).

However, three years have passed since this analysis and most Asian economies have taken meaningful steps to reduce their external vulnerabilities and strengthen domestic macro positions (higher foreign reserves, reduced FX exposures, improved debt mixes) to mitigate the potential impacts from Fed normalisation. In our view, India and Indonesia have made significant progress while Malaysia still faces some challenges. At the same time, the composition of the Asia credit universe has changed – China credit was just 26% of total Asia credit in 2013 compared with 44% now; Chinese investors are now a meaningful part of the buyer base – we estimate these investors own more than 50% of outstanding China credit compared with minimal holdings in 2013. These factors are important considerations and are likely to change the outcome for Asia credit under a Fed normalisation scenario.

FIGURE 3

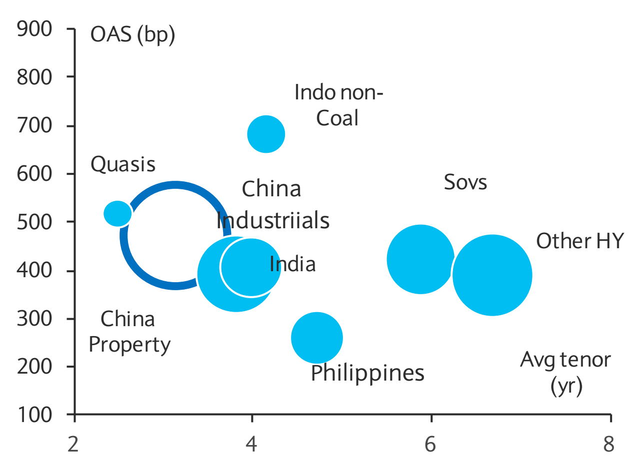
Asia high grade – snapshot of the sectors



Source: Barclays Research

FIGURE 4

Asia high yield – snapshot of the sectors



Source: Barclays Research

[9] Up to 25 November 2016

We think these shifts have to some extent been reflected in Asia credit's performance in November. Changes in spreads in Asia credit were limited (7bp during 8-25 November versus 47bp in 10y UST) and orderly despite the pick-up in volatility, driven by EM fund outflows, weakness in EM FX and sharp moves in US Treasuries.

BBB and BB rated segments offer most value

We expect Asia credit investors to continue to deploy funds in 2017 but to remain watchful of duration (erosion of returns from potential US Treasury moves) and the risk of fund outflows. In high grade, we recommend higher-than-benchmark positions in Indonesia, India and China credit; while in high yield we have Overweight sector rating on Indonesian corporates (Figure 3 and Figure 4). We recommend the BBB and BB rated segments to beat index returns and expect curves in Asia ex-China to flatten while China to steepen.

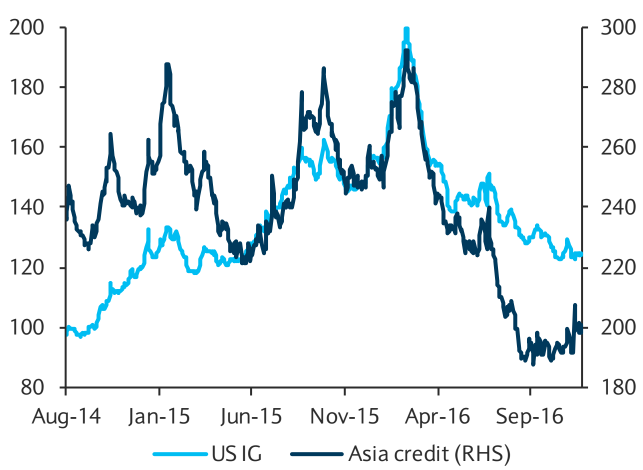
For 2017, we expect Asia IG to widen slightly (about 10bp) and generate excess returns of ~100bp (total returns: 2.0-2.5%). For Asia HY, which is only 20% of Asia credit, we expect around 4% in total returns. In aggregate, this implies that Asia credit will return 2.0-2.5% in total returns and 100-120bp in excess returns next year (Figure 2). We expect Asia returns to lag US credit (Figure 5).

Expect mild widening in Asia IG ex-China: We expect parts of Asia credit such as Indonesia, India and Malaysia to exhibit a high correlation with US Treasuries with potential moves in yields likely to be sharp and large. In addition, we think that concerns about EM fund flows could put pressure on spreads in episodes of elevated market volatility. We would suggest staying on the sidelines during these periods and look to use weakness to add to positions in Indonesia and India as UST levels stabilise. This is because, in our view, fundamentals for corporates and quasi sovereigns in both these segments are solid and supply will be limited in 2017 – within the broader EM context we also think investors will continue to appreciate the stronger positions of Asian companies. In addition, we think the key reasons behind any sell-off in these segments would be positioning – which is crowded in Indonesia – and/or forced unwinding on fund outflows. We expect 5s10s and 10s30s curves to flatten in Asia IG as in-region insurers are likely to add to positions as US rates settle at higher levels.

Expect China IG to remain flat: On the other hand, we expect China credit to be mostly unaffected by potential UST moves (Figure 6), given its strong domestic buyer base, where the motivation to buy is largely related to a desire for diversification and offshore investment. However, in the near term, given continued CNY depreciation pressures, tighter

FIGURE 5

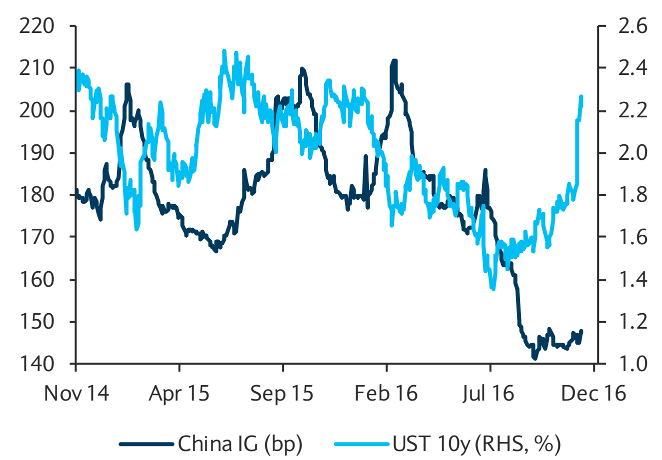
Asia credit spreads versus US IG (bp)



Source: Bloomberg, Barclays Research

FIGURE 6

China IG versus USTs



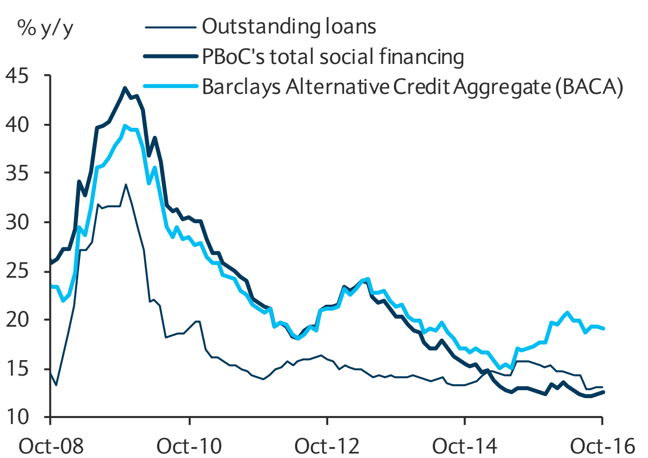
Source: Bloomberg, Barclays Research

domestic liquidity (Figure 8) and seasonality ahead of the Lunar New Year holiday, we expect a temporary slowdown in bond purchases by Chinese investors. This could result in some upward pressure on spreads in the early part of 2017 – we expect bulk of the pressure to be felt in O&G names and benchmarks that are also owned by offshore investors. That said, we believe this structural bid for offshore credit will remain a major theme in 2017, driven by a weakening CNY, search for returns, and need for diversification. This dynamic should receive a boost when the renewed quotas for investment become available in mid-to-late Q1 17, in our view. Following the expected move higher in US rates, we expect Chinese demand to be concentrated in the up to 7y tenors. This implies that spread curves (5s10s and 10s30s) in China credit are likely to steepen. At a segment level, we think the BBB-rated SOEs and LGFVs are the sweet spot. We also expect increasing differentiation between in the bank sector – the 'Big 4' versus the mid- and small-sized banks as issuance picks up from the latter (Figure 3).

Asia HY driven by idiosyncratic developments: The outlook is uneven in high yield. We expect most HY issuers in China, Indonesia, the Philippines and India to see some improvements in fundamentals and they are likely to be mostly unaffected by weakening EM FX (Figure 4). That said, we think risks are building in some segments such as the China property complex where leverage has ticked up, housing policies are being tightened in some parts of the country, and domestic liquidity is tightening. As several Chinese property issuers have tapped the market in 2H 16 at cheap yields, we believe these bonds could reprice in 2017 as market expectations about the sector are reset. Therefore, we expect returns to be dragged down by weakness in the Chinese property sector and idiosyncratic developments in sovereigns (frontier markets). We believe the sweet spot in HY is likely to be the BB-rated segment.

FIGURE 7

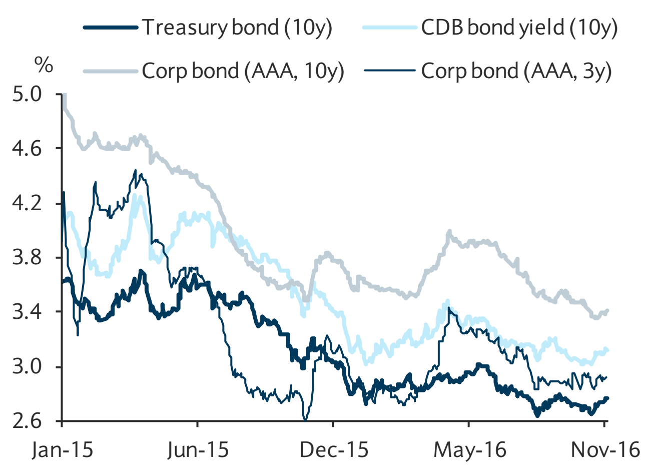
China: Broad credit growth softer, though remains elevated



Source: CEIC, Barclays Research

FIGURE 8

China: Government and corporate bond yields



Source: Bloomberg, Haver, Wind, Barclays Research

Themes: Dancing to the UST beat

We expect the pace and magnitude of potential moves in US rates as well as market expectations of core yields to be the key drivers of Asia credit spreads in 2017 – especially for the ex-China segment. We expect this to shade appetite for risk and duration, partly reflecting concerns about the underlying health of EM economies (given pressures on EM FX; rising domestic yields, etc) and fund flows into EM assets. Markets are already pricing in fiscal expansion and the emergence of inflation in core economies – this, in our view, is the most important shift in expectations going into 2017. While we expect central balance sheets to continue to expand the pace is likely to slow, which could put further pressure on yields and market sentiment. While we expect volatility from these factors to be a feature of 2017, we think markets could exaggerate and over-price the likely impact on core yields and Asia credit in the early part of the year. This could provide opportunities for investors.

Fiscal stimulus coming on stream

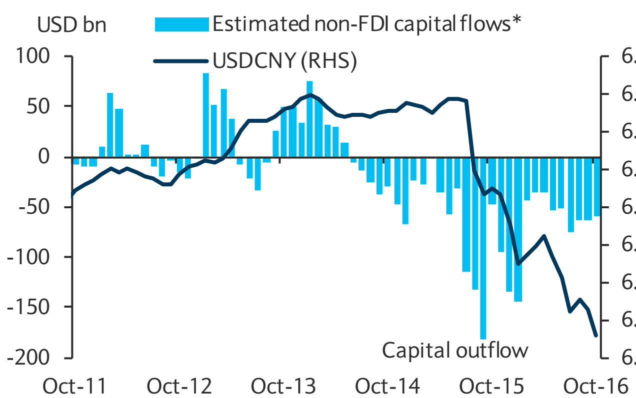
The call for fiscal stimulus is gaining an audience in major economies. Expectations for such action are high in the United States, where Republicans now control the administration and both branches of Congress, following statements by the president-elect as well as the Republican affinity for tax cuts (consequently our economists are forecasting the US budget deficit will rise from 3% in 2016 to more than 5% of GDP in 2017). Elsewhere, Japan and the UK scaled back their fiscal consolidation efforts earlier this year while European countries have generally failed to meet agreed-upon targets for consolidation. Even in China we expect a greater reliance on fiscal support – our economists believe the government will use more fiscal (and quasi-fiscal) measures and infrastructure projects to reduce the risk of a potentially sharp growth slowdown, rather than monetary stimulus via policy rate cuts.

Inflationary pressures building

Recent developments on the inflation front are also notable. In the US, inflationary pressures seem to be building and additional shocks could create a perception that the Fed is falling behind the inflationary curve. With inflation potentially (slightly) higher than the Fed's 2% objective and the economy at full employment or slightly beyond, the risks of a less gradual than anticipated monetary tightening appear meaningful. The PBoC has also shifted its stance to "watching for upward inflationary pressures", as noted in its Q3 Monetary policy report published in November. Stabilising growth amid strong credit expansion, the significant CNY depreciation on an effective basis over the past year, and continued wage

FIGURE 9

CNY depreciation to worsen capital outflow pressures

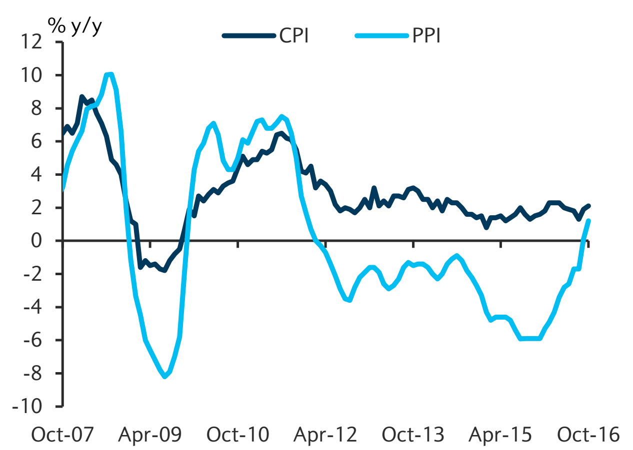


* Estimated capital flows = change in FX purchase position - trade balance - net direct investment + change in FX deposits

Source: Haver, Wind, Barclays Research

FIGURE 10

From deflation to reflation



Source: Haver, Barclays Research

inflation, especially in the high-skilled manufacturing and service sectors, all suggest building inflationary pressures in China. Consequently our economists recently raised their 2017 China CPI inflation forecast to 2.2% y/y from 1.8% (Figure 10).

Themes: China buying China

Given continued CNY depreciation pressures and seasonality ahead of the Lunar New Year holiday, our economists expect the domestic financial liquidity balance to remain tight in the coming months. In the short term, this could drive a temporary slowdown in bond purchases by Chinese investors, thus creating some upward pressure on spreads. That said, we expect the structural bid for offshore credit to remain a major theme in 2017, driven by a weakening CNY, search for returns, and need for diversification.

In 2017, we expect the focus to shift back to China, especially on politics and policy. There are several moving parts that may have an impact on risk sentiment and, consequently, Asian credit spreads:

PBoC's bias towards a neutral to mildly tight monetary stance is likely to drive upward pressure on onshore yield curves

- We expect some pressure on mid- to small-sized banks that are increasingly relying on wholesale funding and companies (such as property developers) that have increased their reliance on onshore funding. As a result, these issuers could face liquidity squeezes, raising concerns about liquidity positions (Figure 8).
- Onshore demand for USD bonds is not likely to be affected by this dynamic given expectations towards potential CNY depreciation.

CNY pressures and inflation risks

- Against the backdrop of a depreciating CNY we expect capital outflows to remain steady (Figure 9), and believe that any capital controls would be ineffective. At the same time, Chinese entities' (corporates, SOEs and banks) incentive to expand their foreign currency investment portfolios will remain strong in such an environment to boost returns and protect capital.
- At the start of next year, Chinese investors will once again be able to access their annual USD50k quota for overseas transactions.
- Any strict use of capital controls (including policies to curb M&A activity) would be ineffective in our view, and would only likely intensify the pressures from outward flows of capital.

Use of more fiscal (and quasi-fiscal) measures and infrastructure projects to support growth

- We believe this area will remain a risk point in 2017 given fears around the impact of a potentially expansionary fiscal policy amid rising financial leverage in the system.

Growing policy focus on financial leverage (wealth management products; shadow credit, etc) and the property sector

- We expect some policy fine tuning to control the pace of total credit expansion in the system. This should put further pressure on the mid- and small-sized banks.

Themes: Asia versus EM

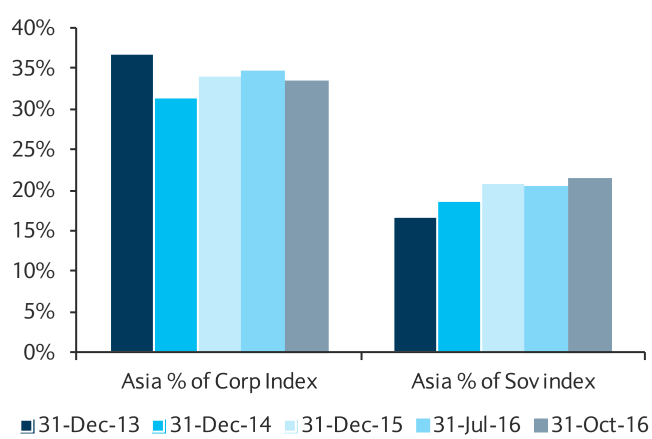
Growing as a proportion of EM indices: Following the large net issuance in the region over the past few years, Asia credit's proportion is growing in major EM indices – from 25% of EM corporate index in 2012 to 35% by October 2016; from 17% in EM sovereign/quasi-sovereign index in 2012 to 22% by October 2016. The pace of growth is likely to have increased investor focus on the region despite tighter valuations compared with the rest of the EM credit universe (Figure 11).

In-region bid dominates technicals: We think one of the key reasons for Asia's tighter-than-the average EM valuation is strong in-region demand. We estimate that more than half of the investor base for Asia credit is based in the region – including benchmarked fund managers, insurers, banks and agencies (including sovereign wealth funds). As a result, when EM fund flows turn and spreads weaken we have found that after a period of adjustment regional investors step into buy and support valuations. This also reduces the overall volatility of the segment as many buyers (such as insurers, banks) are not reliant on EM fund flows, which can affect all fund managers broadly in the same direction at certain points in time.

Fundamentals stronger: At the risk of being too broad brush, we recognise that Asian economies and companies (that have issued bonds) are less reliant on trade flows with the US or Europe; the issuers are more diversified and not concentrated in certain sectors like mining or O&G; and several issuers run businesses that depend on domestic/regional demand. In addition, several big issuers are national champions and household names that have strong access to domestic banking system liquidity and have demonstrated mostly prudent financial management. We think default risks are also lower in Asia due to a general unwillingness to default – helped by good availability of alternative funding options or joint-venture partners.

FIGURE 11

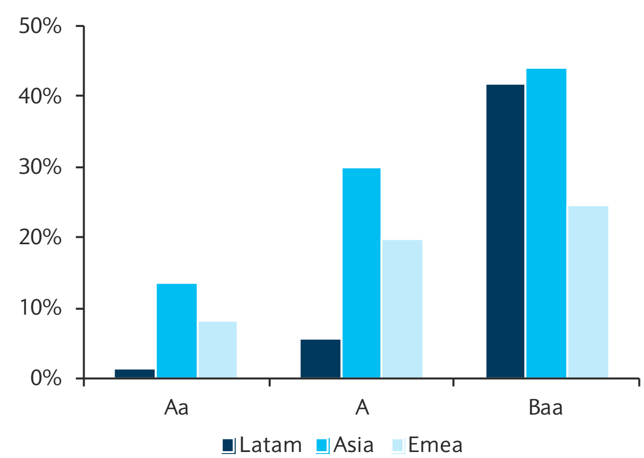
Asia's weighting in the EM indices is meaningful



Source: EMBI, Barclays Research

FIGURE 12

Asia credit overall has more higher quality credits



Source: Bloomberg, Barclays Research

Supply: Chinese on the menu

Primary market activity has picked up sharply in 2H 16, with gross issuance for the year standing at USD178bn as of 28 November (2015: USD147bn; 2014: USD180bn), putting it on track to beat the 2015 tally. Low core yields, close to all-time tight credit spreads, EM fund inflows, in-region demand (banks, insurance), and certain regulations (such as Chinese policy makers encouraging LGFVs to term out loans into bonds) has driven a big jump in both maiden issuance and liability management transactions by seasoned issuers (ie, tender offers; exchanges; pre-funding).

Even then, supply has been well absorbed, in our view. The key reason being the relatively large redemptions and continued strong China bid for credit. We see a notable development from this year that is likely to continue into 2017: the emergence of a new sub-sector comprising bonds issued by local/provincial government-related entities (LGFVs) in China.

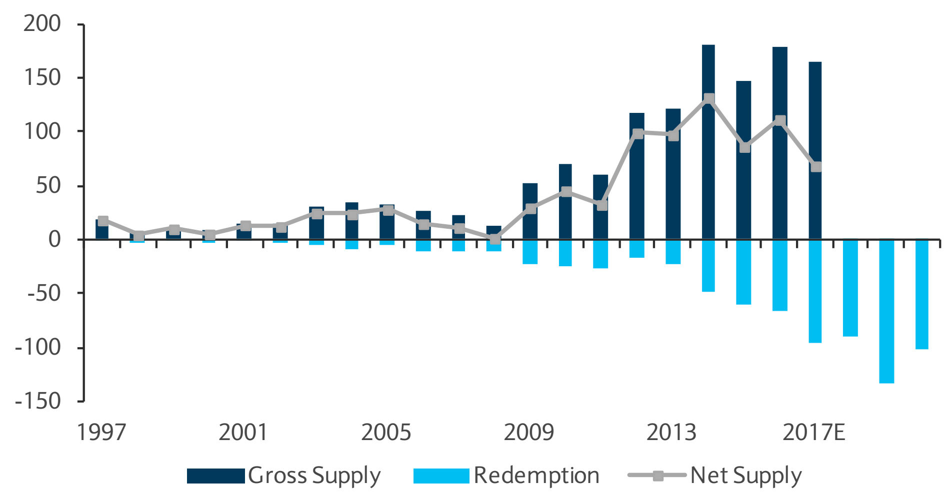
- These bonds have generally been issued at wider than benchmark spreads and in relatively small tranches and with 3-5y tenors. Therefore, the spread-duration contribution to the overall high grade sector has not been material, hence, high grade mandates have tended to continue focusing on SOEs instead of LGFVs.
- But the spread-duration contribution in high yield can be meaningful, especially as other Chinese high yield issuance is flat or lower on a net basis. Therefore, we think high yield mandates will have to increasingly focus on this sector if this issuance trend continues.
- For the time being, LGFV bonds enjoy large onshore sponsorship and benefit from enhanced credit ratings due to perceived government support.

'Yes, it's another Chinese issuer and so will be the next one'

We expect Asia credit to deliver USD160-170bn of gross USD supply in 2017 (bullish estimate: close to USD200bn; bearish estimate: USD120-130bn). Our estimate implies net issuance of USD60-70bn, which is slightly lower than in recent years. Once again, we expect an abundance of China supply, marking a continuation of the pace and variety of issuers seen in 2016. As a result, China's proportion in Asia and EM indices is set to increase and, in our view, could well cross 50% in 2017 (Figure 13).

FIGURE 13

Supply and redemption picture for Asia credit (USD bn)



Source: Barclays Research

- **China:** It should come as no surprise that we expect China to be the largest gross issuer next year. We expect supply to come from Core energy SOEs and power generation/grid network companies for ongoing investment in their energy infrastructure and power networks. We expect non-core SOEs to borrow to support consolidation in the sector and for offshore acquisitions (especially of engineering companies in Europe). Additionally, some proposed major international M&As (ie, ChemChina-Syngenta) could drive maiden offshore bond issuance from new entities. In October 2016, ChemChina obtained the BBB and BBB+ ratings from S&P and Fitch. Currently, USD bonds are issued at the China Bluestar level (ChemChina's subsidiary). Provincial and local government-related entities are also likely to remain a feature given their large funding requirements (ie, for urban development, metro, highways and logistic projects), as well as need to term out loan maturities, and to tap alternative funding sources. High yield supply is likely to be modest and dominated by LGFVs. Chinese property developers have been pre-funding in recent months and we expect gross issuance from this segment to match this year's tally (USD7-10bn) – we see their funding driven by refinancing needs and a rebuilding of land banks. Overall, we expect China to issue more than USD100bn against redemptions of USD33bn. At this rate, China credit would rise from 45% to more than 50% of Asia credit by end-2017 (Figure 14).

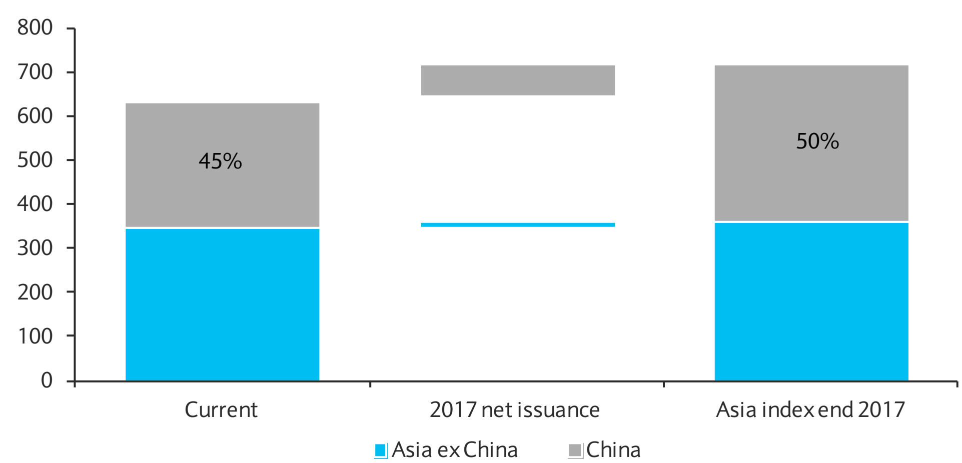
- **Korea:** Issuance is likely to be dominated by the banks looking to refinance large maturities (USD12bn in 2017). We expect net supply to be only slightly positive. Given recent political developments and a general election slated for December 2017 we expect SOEs to maintain flat capex plans and rely on onshore funding.

- **Indonesia:** We do not expect any SOEs or banks to issue in 2017, which implies negative net issuance from this segment. High yield issuance from Indonesia is likely to be mainly to refinance 2018-19 maturities and some capacity expansion. We expect developers and industrials to look for a pick-up in activity numbers before tapping markets to fund capacity expansion plans. Importantly, improved onshore banking system liquidity (especially following flows from the tax amnesty scheme) could offer an alternative funding source. Given this we expect net issuance to be moderate.

- **India:** Net supply is likely to be positive in 2017 given that redemptions are limited. We expect the public sector issuers (banks and SOEs) to dominate. With regards to high yield, though issuance could slow, especially if banks re-start lending onshore, we think HY issuances could be driven by financing needs (well ahead of debt maturity) of some

FIGURE 14

China's proportion in Asia index is set to surpass 50%



Source: Barclays Research

companies such as Vedanta Resources PLC. Additionally, within the steel sector, companies such as JSW Steel, which have received board approval for debt issuance, could consider opportunistic issuances to refinance the higher-cost debt in their capital structures.

- **Sovereigns:** We expect Indonesia once again set to be the largest sovereign issuer in Asia (USD9-11bn) – split between conventional USD bonds (likely pre-funded around end-2016), EUR bonds and global sukuks. From the Philippines, we expect a token size bond issue (most likely up to USD1bn of 25y bonds) but no liability management exercises. Malaysia is likely to become a regular issuer, in our view, to fund its fiscal position. Among the frontier markets, we expect Sri Lanka to borrow USD1.5-2.0bn in 1H 17 (for refinancing, fiscal and reserves); Mongolia to raise ~USD1bn (refinancing and fiscal needs); and Pakistan to issue USD1.0-1.5bn in 2H (for refinancing).

FIGURE 15

Asia credit issuance forecasts (USD bn)

	2014	2015	2016YTD	2017F	Redemptions 2017
HG Corps	**76.2**	**51.6**	**47.7**	**65-70**	**46.5**
China	50.4	32.2	24.2	40-45	18.8
Hong Kong	7.2	2.9	8.9	10-15	14.2
India	4.0	4.1	2.5	4-5	0.3
Korea	9.7	3.1	8.9	7-9	9.8
Indonesia	3.4	1.6	0.0	Up to 1	0.5
Others	1.6	7.7	3.3	2-4	2.8
HY/NR Corps	**27.3**	**19.3**	**32.5**	**up to 25**	**7.3**
China	17.5	13.9	19.2	15-18	4.8
Hong Kong	2.1	1.3	7.4	up to 5	0.2
Indonesia	1.4	1.4	1.8	1-3	0.0
Philippines	1.0	1.4	0.5	up to 1	1.7
India	4.4	0.8	2.1	2-4	0.1
Others	0.9	0.6	1.6		0.5
Financials	**63.0**	**58.5**	**82.1**	**close to 70**	**39.9**
China	33.6	39.0	55.0	45-50	7.3
Hong Kong	5.0	2.1	3.6	2-4	2.7
India	6.1	2.9	3.3	2-4	4.5
Korea	10.2	11.6	14.6	12-15	15.1
Others	8.1	3.0	5.6	up to 4	10.4
Sovereigns	**13.5**	**17.4**	**15.3**	**18-20**	**3.0**
Indonesia	5.5	9.5	5.8	9-11	1.0
Philippines	1.5	2.0	2.0	up to 1	0.5
Sri Lanka	1.5	2.2	1.5	1.5-2	0.7
Pakistan	2.0	0.5	1.0	1-1.5	0.8
Malaysia	0.0	1.5	2.3	close to 2	0.0
Other IG	2.0	1.5	2.2	around 1	0.0
Other HY	1.0	0.2	0.5	around 2	0.0
Total	**180.0**	**146.8**	**177.6**	**160-170**	**96.7**

Source: Barclays Research

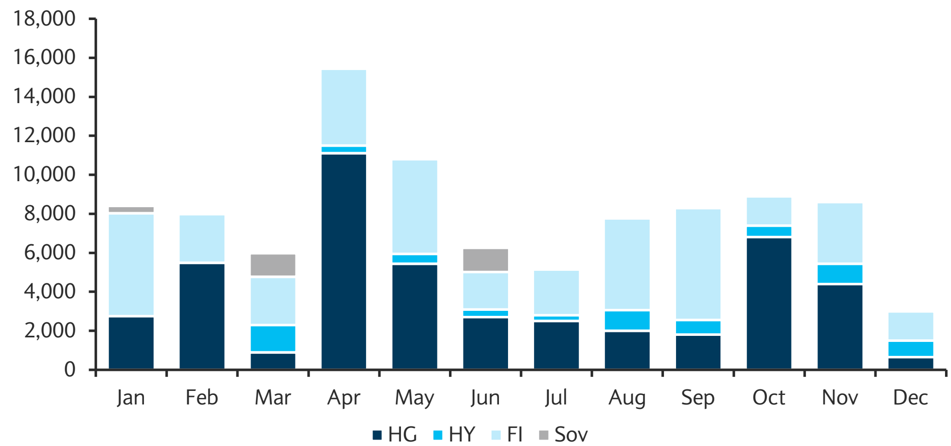
More than 15% of Asia credit set to mature in 2017

We expect supply levels to be manageable in 2017, given our expectation of continued strong demand from China, Taiwan and Japan investors, as well as in-region demand from the banks/insurance sectors. In addition, nearly USD100bn of bonds will mature next year – equivalent to nearly 15% of the current total size of Asia credit. This will provide a very solid technical backdrop for the market. The bulk of the maturities will come from Chinese core SOEs and bank senior bonds; Hong Kong corporates; and Korea corporates and banks.

We expect Chinese investors (dominated by the banks) to purchase at least USD30bn of bond supply (mainly China credit), based on our assessment of the growing pool of money in China and lack of yield products for investments onshore. Demand from Taiwan and Japan is likely to be broadly flat y/y, in our view, which implies around USD10bn of buying. We also assume that all of the USD100bn maturities are re-invested in Asia credit. In such a scenario, our estimate of total issuance should be more than adequately absorbed by the various investor segments in the region, even if there is some softness in the pace of EM fund flows.

FIGURE 16

Monthly redemptions in 2017 (USD mn)



Source: Barclays Research

FIGURE 17

Top 10 issuers with maturities in 2017 (USD mn)

Financials	Amount maturing	Corporates	Amount maturing
KDB	3800	HUWHY	5500
EIBKOR	3002	SINOPE	4350
ICBCAS	2400	CNPCCH	2200
SBIIN	1875	HYNMTR	1900
DBSSP	1750	WHARF	1300
KEBHNB	1700	CNOOC	1250
CITNAT	1300	WHEELK	1035
UOBSP	1250	CHMETL	1000
BNKEA	1200	HIGHWY	1000
MAYMK	1200	KOREAT	1000

Source: Barclays Research

Demand: China buying in focus

Despite various regulatory controls, we believe outward portfolio investment from China is set to accelerate next year due to a softening growth trajectory and large amount of household savings, which have limited investment opportunities.

A growing source of demand for Asia credit is China-based investors – we estimate these investors now own at least 50% of outstanding China USD-denominated credit. Moreover, we expect AUM growth of Chinese funds to outpace issuance of China credit (and the rest of Asia) in the coming years. This expected growth in AUM will be driven by ample liquidity onshore, relatively limited availability of yield or investment products, a focus on return generation and need for diversification. These factors imply that Chinese investors will increasingly need to diversify into other markets – EM and DM to meet both size and yield demands. While a high allocation will likely be maintained to bonds of Chinese companies, we expect a diversification trend to evolve, beginning with a rise in allocations to debt of global banks and 'national champions'.

FIGURE 18

Summary of our views about offshore demand from the various institutions in China*

	Motivation for buying	Total assets (latest data available)	Expected offshore demand pa
Banks	**Asset-liability management:** Chinese banks have been reporting steady rises in foreign currency deposits by residents since mid-2015. We believe this is a consequence of the weakening CNY and increased scrutiny on outbound currency flows. **Lower demand for loans** (especially among mid-tier and smaller banks), caps on loan exposures to certain sectors, rising NPLs and higher provisioning are putting pressure on banks' profitability. Therefore, banks have been growing their proprietary trading books to boost performance. **Loan to debt migration:** (1) to encourage companies to repay outstanding loans, which allows a bank to avoid NPLs; (2) to maintain lending relationships by helping with bond syndication and buying a customer's bonds; (3) earn fee income from syndication; and (4) earn interest income from bond coupons. **Mid-tier Chinese banks** are actively marketing wealth management products, where the underlying products are primarily USD-denominated high yield bonds or banks' subordinated debt.	Total deposit base: CNY152trn (USD23trn) - Of which Foreign currency deposits: USD658bn Portfolio investments % of total deposits: 13-15% - Foreign currency: 8-9%	Demand for offshore fixed income: (1) USD10-15bn for asset liability management (2) Another USD10bn plus for proprietary trading and WMP
Insurance companies	**Need to generate higher returns** given low bond yields in China, and a weakening CNY, to match payouts **and** to mitigate pressures from higher provisioning. **Growing focus on asset-liability matching** – duration and liquidity is another driver. **CIRC has permitted broader geographic access** (including to the US, UK, Germany, Japan, Australia, Korea, Taiwan, India, Indonesia and Brazil) to mainland insurers' Hong Kong-based asset management arms. The body has also lowered the minimum credit rating requirement to BBB- from BBB for overseas fixed income investments. **Deploy funds** from offshore bond issuances. **Regulations on offshore investments are easing.** Under the new regulations, insurers no longer require prior approval for most foreign investment and the cap on foreign investment as a percentage of previous years' total funds has been raised to 15%.	**Total**: CNY11trn - of which offshore allocation is USD30bn (or 1.96%)	**Demand** for offshore assets is likely to be around USD5bn
Pension funds	**Need to generate positive and higher returns** on pension **assets** to avoid shortfalls against future liabilities. **Easing regulations** on offshore investments	NSSF total AUM: CNY1.9trn - of which offshore allocations is USD18bn - about 5.9% (we believe most of it in equities)	**Demand** for offshore assets is likely to be around USD2bn (with bulk of it for equities)

	Motivation for buying	Total assets (latest data available)	Expected offshore demand pa
State agencies (CIC)	**Need to generate higher returns** on official funds	**Total:** CIC's AUM Is USD810bn and roughly 14% is in fixed income	**Demand** for offshore fixed income is likely to be modest at USD1-2bn
Asset management companies	**Rising retail and institutional demand** for **investment** products and alternatives to generate better returns is a big driver of AUM growth. **More allocations/mandates** from pension funds, insurers and banks are also driving AUM growth	**Total:** AUM is CNY46.5trn (of which CNY7.95trn is mutual funds)	**Demand** for offshore fixed income is likely to be modest at USD1-2bn

*For more details, see *Asia Credit Strategy: China's great wall of money*, 8 August 2016. Source: Barclays Research

Fundamentals: Pick-up in M&A and capex; weaker EM FX has limited impact

We expect earnings for most high grade corporates in Asia to remain steady and their liquidity levels to be sufficient. On the other hand, we think high yield companies are more likely to see improvements in earnings on stronger demand. The liquidity positions of most high yield companies under our coverage are likely to remain stable, with a few exceptions in the Indonesia space. The key areas of focus are likely to be:

- **M&A activity:** Consolidation among Chinese non-core SOEs is possible given the government's intention to reduce excess capacity in the economy. In the TMT sector, we expect M&A activity to continue as companies look to further expand footprints. Based on their track records of acquisitions, we think Hong Kong conglomerates like CK Hutchison will continue to look for targets in the utilities, infrastructure and telco sectors. We would expect the rating agencies to put ratings on Watch on any news of large M&A deals involving Chinese non-core SOEs, especially if they were likely to be mostly debt funded. But for potential deals involving Chinese SOEs, we would expect ratings to move higher after completion given the likelihood of larger market shares and stronger government relationships.

- **Capex:** We expect a pickup in capex at most companies but for liquidity to be manageable. For Chinese industrials, we think capex will be limited due to the issues of overcapacity and weak commodity prices.

- **EM FX:** Implications from weaker Asian currencies are limited for high grade corporates, in our view – Chinese oil & gas companies are unlikely to be much affected because the energy market is denominated in USD. Most of the business of the Chinese utilities/power grid networks is conducted in CNY. A couple of Chinese TMT companies may see some impact through translation effects for companies reporting in HKD and USD, given that the majority of their revenues are derived in CNY (in Lenovo's case, EM currencies). Indian energy companies could see a negative impact from higher local costs for imported oil. The Chinese high yield industrials are mostly domestically focused; hence, any FX impact will likely be seen only through higher leverage ratios due to USD debt funding. In Indonesia, as most companies we cover have hedged their USD debt up to IDR 14,000-15,000/USD, a weaker IDR will not necessarily benefit as their raw materials are mainly USD-dominated (ie, Gajah).

FIGURE 19

Fundamental outlooks for Asia credit high grade corporates

	Earnings and liquidity	M&A and capex	Implications from weaker EM FX
China Core SOEs	Mixed performance expected, with the upstream energy companies weighed down by lower y/y energy prices, while the utilities and power generation companies are likely to maintain steady performances. Liquidity is generally satisfactory due to good access to the domestic capital markets.	The core energy companies have been less aggressive in large-scale M&A but we would not rule out some modest acquisitions over the coming year. Companies have been disciplined in their capex plans this year, with cuts to investment in the oil and gas sector.	Little impact. The energy market is largely denominated in USD. For the utilities/power grid network companies, most business is conducted in CNY with only a small exposure to foreign currency transactions through international operations.
China Non-core SOEs	Helped by supportive government policies, gas distribution companies continue to do generally well while the outlooks for railway infrastructure companies remains positive with strong order backlogs (China Railways Construction, China Railway Group). Liquidity is also satisfactory given the central SASAC-owned status of these groups.	Large M&A transactions are underway, which is likely to lead to some of these SOEs becoming even more strategically important, on elevation to core SOE status (due to industry consolidation). Announced M&As in focus include: ChemChina + Syngenta; Baosteel + Wuhan Steel; Minmetal + China Metallurgical. More M&As among the lower-rated non-core SOEs are possible given the government's target to reduce excess capacity in various sectors.	Manageable. Positive for exporters while some pressure on FX debt of mining and metals companies, albeit offset to some extent by natural hedges.
China LGFVs	Most seem to be performing well in their provincial roles or mandates (metro, subway, logistics etc) though business performances depend on provinces with mixed needs. While liquidity is typically tight on balance sheet, this has not been an issue so far given support from their local banks.	Selective; with most acquisitions likely focused within provinces (and transactions unlikely to be as large as among major SOEs). We expect heavy capex to increase.	Manageable
China Non SOEs	Both revenue and earnings growth rates for the TMT companies are likely to remain double-digit, as retail sales continue to move from offline to online. Liquidity likely to be strong for the TMT names, while the consumer staples have adequate cash levels. Consumer companies continue to face margin pressure amid intense competition.	TMT companies are likely to remain active in M&A, although potential further acquisitions are likely to be bolt-on. Net capex should rise for TMT companies, but likely to be manageable as FFO easily covers capex needs.	Some impact through translation effects for a couple of companies reporting in HKD and USD, as a majority of revenues are derived in CNY (in Lenovo's case, EM currencies).
Hong Kong	We expect earnings growth for landlords likely to remain flat to mid-single digits. While we think property sales transactions could dip as much as 40% in the next 12 months or so, the impact would only likely be reflected on P&Ls from 1H 2017. Developers with residential property sales are likely to see increases in the next 6-12 months, as they book revenue from a surge in units sold in China and Hong Kong. Liquidity to remain strong.	CK Hutchison is likely to remain interested in utilities/infrastructure/telco M&A. Some limited transactions among the property or utilities companies likely. Capex to remain high for some companies such as Swire Properties, and developers that are speeding up property launches, such as SHKP.	Impact likely limited to companies with significant China revenues.
India	Oil companies are doing well, but telecoms face more challenging times on government regulation on tariffs. We expect stable liquidity.	Likelihood of M&A is low, as energy companies have already bought large assets from Rosneft this year while heavy capex expected.	Negative given increased import cost of oil.
Korea	Mixed, as exporters are likely to benefit from weaker KRW (versus USD), but issues continue to dog companies like Samsung. Korea Gas and KEPCO should record stable earnings, but low oil prices likely will continue to weigh on KNOC. For most corporates, we expect political issues to have a limited impact on operations.	We expect limited M&A, but capex will likely remain significant for the quasis.	Positive for exporters.

Source: Barclays Research

FIGURE 20

Fundamental outlook for Asia credit high yield corporates

	Earnings	M&A	Implication from weaker EM FX
China Industrials	**Improving:** Infrastructure corporates likely will continue to report weak but improving results partly due to supply controls. Commodity corporates' earnings should strengthen on higher prices, and consumer-related corporates' earnings should increase on rising domestic demand. Corporates, even infrastructure and commodity companies with weak liquidity profiles, should continue to enjoy access to onshore liquidity. Consumer corporates have strong liquidity positions and good access to funds. The ability to balance growth and leverage will be the key focus for consumer-related corporate.	Consumer corporates are potential sources of outbound M&A. The cement sector is consolidating and smaller producers are likely to be acquired, subject to regulatory approval. Overcapacity will likely mean minimal expansionary capex.	Most corporates in our universe are domestically focused and the impact on operations should be limited and likely will be seen in higher leverage ratios due to USD debt funding.
Indonesia	Improving macroeconomic outlook and consumer confidence should support higher earnings. For coal producers, higher coal prices will be positive for earnings. With a few exceptions, most Indonesian corporates have extended their debt maturity profiles and therefore face limited liquidity pressures. In addition, the success of Indonesia's tax amnesty plan should be a key driver of consumer demand, especially for big-ticket items such as property and motor vehicles.	M&A activity has been low historically, and we do not expect a pickup in 2017. In terms of capex, a potential increase in property sales may prompt developers to replenish land banks more aggressively.	Most corporates in our universe have hedged their USD debt exposure up to IDR 14,000-15,000/USD, so any impact would be felt only if USDIDR moves above these levels. A weaker IDR will not necessarily benefit as their raw materials tend to be mainly USD-dominated (ie, Gajah).
Philippines	Generally positive, other than the competitive telecom market in Philippines.	Selective; but no major transformational M&A at this point. We also expect capex to be modest.	Manageable. Companies are aware of the adverse impact of a strengthening USD and have been lowering USD debt as a percentage of their total debt.
India	Steel companies and resources companies are performing satisfactorily, largely owing to better realized prices (steel) and higher y/y commodity prices (resources). Telecom companies' earnings have weakened. FDA approvals will be the key driver for pharmaceutical companies.	Selective; no major M&A in store. Key restructuring activity is Tata Steel's European business. We expect capex to be high.	Mixed. Commodity prices denominated in USD are a negative for the end-markets (lower margins).

Source: Barclays Research

Rating moves mostly on acquisitions and sovereign links

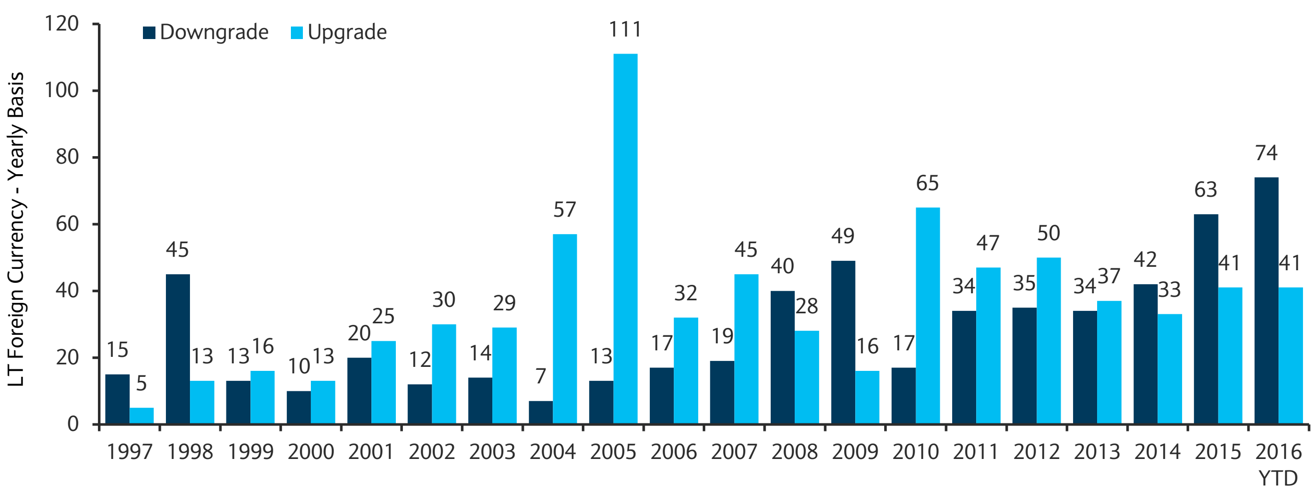
We expect acquisitions to be the key driver of rating changes for high grade corporates in 2017. Continued consolidation among Chinese SOEs is likely to result in upgrades for lower-rated SOEs, but we think the ongoing focus on overseas acquisitions among larger SOEs could lead to negative rating outlooks at least initially. We expect high yield corporates' ratings to be driven by their liquidity positions. As usual, any changes in sovereign ratings will likely have a follow-on impact for state-linked companies.

The Negative Outlook on China's sovereign rating outlook will come into focus in Q1 17. We expect the agencies to affirm China's ratings but maintain a Negative Outlook citing some stabilization in capital outflows and upcoming political transition. We believe pressure on the rating is set to rise and could lead to a one-notch downgrade over the next 12-18 months, driven by increasing economic and financial risks; fiscal policy induced growth; and credit growth expanding faster than nominal growth. Over the next five years, we expect China's sovereign ratings to settle at least two notches lower, at A2/A.

We believe S&P's sovereign rating on Indonesia is too low and expect the agency to upgrade the sovereign to BBB-. Improving growth and revenue collections should support a higher rating. We expect divergent rating trajectories among Indonesian quasi-sovereigns. In our view, Pertamina's ba1/bb+ baseline ratings are likely to be upgraded as agencies reassess the shift in its business model toward refining and the resulting lower earnings volatility. On the other hand we see risks of a downgrade of Perusahaan Gas Negara's (PGN) baseline rating (baa3/bbb-) on weakening margins and high capex. Given that the company is only 57% government owned, we think a downgrade to its baseline ratings could lead to a downgrade of its final rating and push it into the high BB bucket.

FIGURE 21

Upgrades and downgrades in Asia credit



Source: S&P Ratings, Bloomberg, Barclays Research

FIGURE 22

Potential rating upgrade and downgrade candidates in Asia credit (does not include possible corporate rating changes due solely to changes in sovereign ratings)

High grade		High yield	
Upgrade	**Downgrade**	**Upgrade**	**Downgrade**
China National Bluestar Group (Baa2 Neg/BBB/BBB+ Watch Positive) Fitch views its strong links to the credit profile of parent ChemChina as positive. However, Moody's Negative Outlook largely reflects the risk of a weaker credit profile of ChemChina due to the proposed acquisition of Syngenta.	**Adani Ports & Special Zone* (Baa3 Neg/BBB- Neg/BBB- Stb)** Moody’s and S&P’s Negative Outlook was driven by higher-than-expected leverage in the FY15-16 results. However, the company reduced its related-party loans in 1H16-17 and reported positive operating results in 2Q. As such, we think ratings pressure has receded despite the Negative Outlook by the agencies.	**MIE Holdings* (NR/B- Neg/CCC)** Improvements to liquidity if its planned sale of a 60% stake in Emir-Oil is completed, coupled with potentially higher cash generation if oil prices recover, could prompt S&P to move its Outlook to Stable.	**Gajah Tunggal* (B2/B-/NR both CW Neg)** Gajah is expected to address refinancing needs for the GJTLIJ '18s in the coming year. Its ratings could be downgraded if the refinancing is not successful or, in the event of a bond exchange proposal, the agencies view the action as a distressed debt exchange.
Indonesia (Baa3 Stb/BB+ Pos/BBB- Stb) We expect S&P to upgrade the sovereign to investment grade eventually, on the country’s improved fiscal position, reduced external vulnerabilities and stronger growth.	**Baoshan Iron & Steel Co Ltd (Baa1 Neg/BBB+ Watch Neg/A- Watch Evolving)** The proposed merger with Wuhan Steel (weaker credit profile) is likely to lead to higher leverage for the merged entity; however, the Chinese government has not provided many details on the deal.	**Noble Group* (B2 Neg/B Neg/BB+ Stb)** The company's ability to address refinancing needs and improve earnings could prompt the agencies to revise their outlooks to Stable	**Indika Energy* (Caa1 Neg/NR/CCC)** Indika is also expected to address its 2018 refinancing needs next year and like Gajah Tunggal, a bond exchange proposal could be viewed as a distressed debt exchange by the agencies.
Pertamina (Baa3 Stb/BB+ Pos/BBB- Stb) We expect rating agencies to raise Pertamina’s baseline rating, given the shift in its business profile toward refining and higher margins.	**Beijing Enterprises Holdings* (A3 Rfd/BBB+ Neg)** The company's proposed acquisition of a 20% stake in Verkhnechonskneftegaz for USD1.1bn is likely to weaken its financial profile.	**Sritex* (B1 Pos/NR/BB- Stb)** We expect higher earnings and lower capex to result in lower leverage, which should lead Moody's to upgrade its ratings	**Lippo Karawaci* (Ba3 Neg/B+ Stb/BB- Stb)** Failure to improve marketing sales in 2016 and sell assets in Bali and Jogjakarta for IDR1.7trn by year-end likely could prompt Moody's to downgrade its ratings
Tencent* (A2 Stb/A Pos/A+ Stb) The company's competitive moat is wide, and earnings growth and free cash flow generation are likely to remain robust, which should help drive a sustained improvement in credit metrics – barring an aggressive M&A activity.	**China (Aa3 Neg/AA- Neg/A+ Stb)** Moody's and S&P put the ratings on Negative Outlook in March 2016, and we expect both to reaffirm the Negative outlook in 1H17. However, we see downward pressure on ratings in 2H from rapid credit growth and expansionary fiscal policy. We expect the agencies to wait until the political transition, but believe the sovereign ratings will be lowered least two notches over the next five years.	**Studio City* (B3/B/NR both Neg)** The company's ability to address potential loan covenant breaches and its 2018 refinancing needs, coupled with improving earnings, could prompt the agencies to revise its outlook to Stable	**Lodha Developers Pvt Ltd (B1 Neg/NR/B Neg).** Downside ratings risk is attributed to high leverage and relatively weak liquidity, partly mitigated by cash collection from certain projects (World Tower and The Park).
	China Oilfield Services* (Baa1 Neg/BBB Stb/A Stb) Moody's Negative Outlook is line with the sovereign’s, and any further deterioration in the company’s operating performance (profit warning in 1H) could increase risk of a downgrade. In November, S&P downgraded COSL one notch, to BBB.		**Sri Lanka (B1 Neg/B+ Neg/B+Neg)** We expect the agencies to cut the sovereign’s ratings at least one notch, given weak growth and limited progress on fiscal consolidation. We expect the VAT hikes to weigh on consumption and growth, and total debt will continue to rise.

High grade		High yield	
Upgrade	**Downgrade**	**Upgrade**	**Downgrade**
	Perusahaan Gas Negara (Baa3 Stb/BB+ Pos/BBB- Stb) Given its narrower margins and inability to set prices, we expect some pressure on earnings and a rise in leverage. We see risks that the agencies could lower PGN's baseline ratings, which could put downward pressure on overall ratings.	**Texhong Textiles (Ba3/BB/NR both Stb)** Continued improvement in earnings and leverage would likely result in Positive Outlooks or rating upgrades.	**Reliance Communications (Ba3 Rfd/NR/BB- Stb)** Moody's expects the proposed organizational and financial restructuring, driven by the merger of Reliance Communication and Aircel, to lead to a smaller business scale and a weaker business profile.
	Shanghai Electric Power Co Ltd (Baa2 Rfd/BBB Watch Neg/BBB+ Stb) The company's acquisition of a 66.4% stake in K-Electric Ltd in Pakistan (market cap: USD2.5bn) is likely to lead to higher financial leverage.	**Vedanta Resources* (B1 Stb/B Pos)** We think an improved liquidity position (once the Vedanta Ltd-Cairn India merger is completed by end-March 2017), pre-financing to extend the debt maturity profile and the stabilization of commodity prices increase the likelihood of a positive ratings trajectory.	**West China Cement* (B1 Neg/B Neg/B+ Stb)** If weak cement prices continue to weigh on earnings and liquidity, agencies could downgrade its ratings.
	Swire Pacific* (A3 Stb/A- Neg/A- Stb)/ Swire Properties* (A2 Stb/A- Neg/A Stb) Further weakness in its industrial and offshore segments, as well as elevated financial pressure, could lead to downside ratings risks for Swire Pacific, especially at S&P. We think Moody's could revise the outlook to Negative if cash flow metrics continue to deteriorate. Swire Properties' ratings also would be affected if its parent's ratings are revised.	**Yingde Gases* (B2 Neg/BB- Neg/B+ CW Pos)** Proceeds from the recently announced equity issuance address Yingde's immediate refinancing needs. Management changes could also improve the company's operating performance, which may persuade Moody's and S&P to revise the Outlook to Stable.	
	Tingyi (Baa1 Neg/BBB+ Neg) Negative ratings pressure could intensify if competition remains elevated in China and leads to further declines in revenue and earnings, or working capital pressure. S&P believes this could also delay the pace of deleveraging.		

Note: *Under Barclays credit coverage. For more details, see *Asia Credit Strategy: Ratings likely to move on acquisitions and sovereign linkages in 2017*, 22 November 2016. Source: Barclays Research

FIGURE 23
Financials that have either a Negative or Positive Outlook assigned by rating agencies (but not related to sovereign rating outlooks)

Name	Moody's	S&P
AIA Group	A3 Pos	A Stb
Bank of East Asia	A3 Neg	A Neg
China Citic Bank Intl	Baa1 Neg	NR
Dah Sing Bank	A3 Neg	NR
DBS	Aa1 Neg	AA- Stb
Oversea-Chinese Banking Corporation	Aa1 Neg	AA- Stb
United Overseas Bank	Aa1 Neg	AA- Stb
Indian Overseas Bank	Ba1 Neg	BB Stb
KEB Hana Bank	A1 Neg	A+ Stb
Busan Bank	A2 Neg	A- Stb
Shinhan Bank	Aa3 Neg	A+ Stb
Woori Bank	A2 Neg	A Stb
Daegu Bank	A2 Neg	A- Stb

Source: Moody's, S&P

FIGURE 24
China Property companies that have either a Negative or Positive Outlook assigned by rating agencies (but not related to sovereign rating outlook)

Name	Moody's	S&P
China Vanke	Baa1 Neg	BBB+ Neg
China Aoyuan Property	B2 Pos	B Pos
China Evergrande	B2 Neg	B- Neg
China Properties	NR	CCC+ Neg
China SCE Property	B1 Neg	B Stb
China South City Holdings	B2 Neg	B Watch Neg
Glorious Property	Caa2 Neg	NR
Greenland Global Investment	Ba2 Neg	NR
Greenland Holdings HK	Ba2 Neg	BB- Neg
Longfor Properties	Ba1 Pos	BBB- Stb
Powerlong Real Estate	B2 Pos	B Stb
Shimao Properties	Ba2 Stb	BB+ Neg
Sino Ocean land	Baa3 Neg	BBB- Neg
Sunac China	B2 Stb	B+ Neg
Xinyuan Real Estate	NR	B Neg
Yuexiu Property	Baa3 Neg	BBB- Neg
Yuzhou Properties	B1 Stb	B+ Pos

Source: Moody's, S&P

Unwillingness to default trumps ability

Over the past four years, several issuers have made opportunistic cash tender offers for their own bonds trading at a deep discount (for instance Indika, Yanzhou Coal), in the process creating value for equity holders and reducing the amount of bonds outstanding (although they repaid the holdouts' bonds at par). Conversely we find that in many situations (such as Glorious Properties and China Oriental Group), an analysis of financial statements and an assessment of operating conditions would not have been sufficient to accurately assess that a stressed company would likely default. This makes its very challenging to identify default candidates and forecast default rates in Asia.

Our analysis indicates that a minority of bonds priced at 90 or below at end-December have defaulted in the following year. In most of these cases, the bonds had been trading at stressed levels for extended periods before a default occurred (Figure 25). This is because:

- Domestic sources of liquidity have usually been available despite mild financial stress and adverse operating conditions. Sources of liquidity include banks, other financing companies or joint-venture partners.
- Some companies utilize low bond prices to proactively restructure debt (many times on investor friendly terms), even though their liquidity could be adequate.

FIGURE 25

A minority of bonds priced at 90 or below at end-December have defaulted in the following year

USD bn	Notional amount of HY corp bonds outstanding trading below 90 at end of previous year	Number of issuers	Notional amount of bonds that defaulted subsequently	Number of defaults
2012	3,523	8	1,423	4
2013	8,820	18	1,869	4
2014	10,623	20	2,759	3
2015	14,180	24	1,187	2

Source: Barclays Research

As of 28 November 2016, USD6bn of Asian High Yield corporate bonds from 12 issuers were trading at a price of 90 or lower. We think 2-3 high yield corporate issuers could default over the next year, implying a par-weighted default rate of 1.2% and an issuer-weighted default rate of 2.0%[10] – we think companies such as Hsin Chong Construction (HSINCG), MNC Investama (BHITIJ) and Global AT&T Electronics (GATSP) are likely to be scrutinized for their ability to service debt, as they are likely to face challenges to re-finance debt, and/or their liquidity positions are tight. But we do not expect a significant pick up in defaults because several high yield companies have pre-funded upcoming maturities in 2016 or conducted liability management, such as the recently announced deal from Studio City.

Default rates in numbers:

- Chinese issuers' have shown a strong unwillingness to default - several companies have been able to find alternative funding domestically or sell assets or find joint venture partners that enabled them to eventually service their debt (eg: Kaisa). According to Moody's, the default rates for speculative grade bonds Asia Pacific ex Japan[11] and China was 5.3% and 1.7% between July 2015 and June 2016.
- US HY defaults reached 7.2% at the end of September, which is significantly higher than the less than 4% rate in Asia over the past four years.

Within EM corporate, Asia also shows relatively lower default rates. YTD LatAm has reported a more than 7% default rate.

[10] Our estimate is lower than Moody's because we only include companies that have USD denominated offshore bonds

[11] Includes Australia, New Zealand and Marshall islands. It includes companies that have bonds and loans.

Latin America and EEMEA Credit Strategy

LATIN AMERICA, EMERGING EUROPE & MIDDLE EAST CREDIT STRATEGY

A change in the driver's seat

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We forecast 5% total returns in 2017 for LatAm/EEMEA credit, driven almost entirely by carry. For context, this is much lower than 2016 (~12% so far), but close to the average of the prior five years. In our base case, LatAm should outperform EEMEA.

Several positives are set to drive the market. Based on our economists' forecasts, we expect index-weighted growth in the LatAm/EEMEA region to accelerate by almost 2% in 2017. Corporate leverage has stabilized after several years of deterioration. Meanwhile, net supply should remain very low, with redemptions front loaded into Q1. Furthermore, valuations are reasonable: spreads are much tighter than they were at the start of the year, but still 100bp off the 2012 tights.

However, the range of potential outcomes is much wider than normal. Key risks include higher risk-free yields in developed markets and a strong US dollar. Both of these could weigh on flows into emerging markets. There are more fundamental risks, too: the Trump administration could enact protectionist policies, which could dampen economic prospects for some EM countries.

Our key forecasts for 2017

- **Returns: Carry will be the main source of returns.** Persistent US dollar strength or a large US Treasury sell-off could be the catalysts for outflows from EM funds, especially ETFs. That said, we would view any big sell-off as a buying opportunity, as we think that macro and micro fundamentals will stabilize or improve further in 2017. Carry will be the main source for return. We forecast EEMEA and LatAm corporate spreads to tighten by a modest 10bp over 2017.

- **Supply: We expect negative net supply for 2017.** In our central scenario, we expect gross supply to remain stable compared with 2016 levels, at about $105bn. But there are even larger redemptions. Therefore, net supply should be -$15bn in EEMEA (our base case assumes Russian sanctions remain in place) and close to 0 in LatAm. Front loaded redemptions should provide technical support in H1 17.

- **Defaults: We expect defaults to fall to around 2% in 2017, from almost 4% in 2016.** Higher commodity prices will support further improvements in corporate fundamentals. The gradual rise in US Treasury yields should not jeopardize the capacity of EM corporates to fund in capital markets, as most of the rise is expected in the front end. If PDVSA were to default in 2017, our par-weighted default rate would increase to 7-8%.

- **There is an unusually high dispersion of potential political, geopolitical and macro outcomes in 2017.** In an alternative scenario, political risk will lead to significantly higher EM credit spreads. Were the US administration to impose tariffs on China or Mexican exports, or should the French presidential elections jeopardize the future of the eurozone, or if US Treasury yields increase much faster than expected, EM corporate credit spreads could widen substantially.

FIGURE 1

Our LatAm and EEMEA corporate credit returns forecast: central and alternative scenarios

	Central case			Bear case		
	All	EEMEA	LatAm	All	EEMEA	LatAm
Current spread (bp)	390	295	480	387	295	480
End 2017 Forecast	380	280	480	490	370	600
Duration	5.1	4.2	5.6	5.1	4.2	5.6
Treasury yield change	4	12	4	40	45	40
Assumed recovery rate (%)	25	25	25	25	25	25
Price	97	102	93	97	102	93
Assumed default rate*	2.1	0.6	3.5	9.3	2.8	*15.0*
Credit loss (bp)	72	19	115	310	91	494
2017 excess return	300/350	300/350	350/400	-450/-450	-150/-100	-650/-600
2017 Total return	450/500	400/450	500/550	-500/-450	-150/-100	-750-700

Note: * Default rate based on the HY portion of the universe only. In the alternative scenario, LatAm default rate slightly lower than in our pessimistic forecast. Source: Barclays Research

Key strategies for 2017

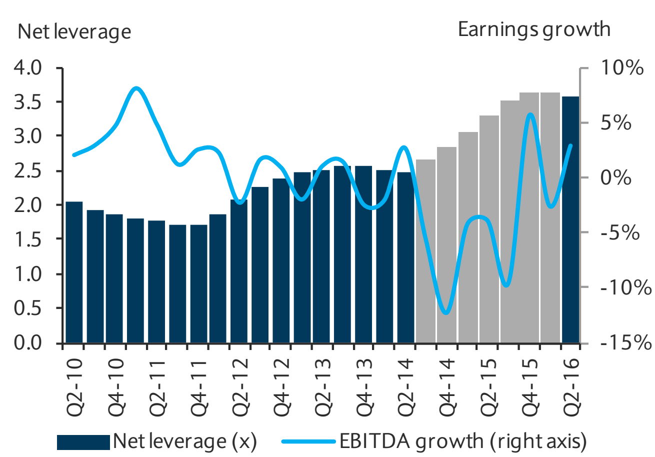
Country recommendations:

Unlike in 2016, we believe that LatAm performance in 2017 will be heterogeneous:

- We are cautious on **Mexico**: The external outlook has worsened with the US election outcome. We think that the headline risk regarding a possible US exit from NAFTA will dominate price action, until the Trump administration gives more details. Our sovereign strategists have downgraded Mexico to MW in their strategic portfolio, in view of these looming risks. Short MXN has been a popular trade to hedge against such risk, and the increasing sensitivity of corporate spreads to the currency (See Figure 4) leaves us cautious about corporates in the country, despite cheaper spreads to the sovereign (see Figure 5). Although some credits such as Pemex or BBVASM should be less fundamentally affected than others, given their limited exposure to the US economy, we believe that these names will hardly decouple from the other Mexican corporate complex as long as the Trump administration has not clarified its policy toward Mexico.

FIGURE 2

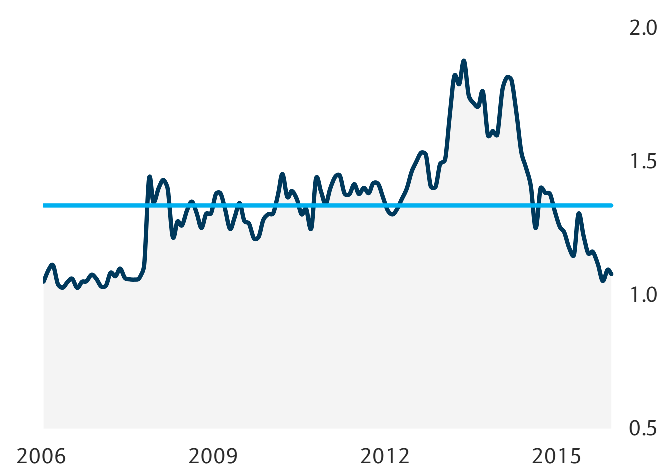
Average EM corporate fundamentals stabilized in Q2 16



Note: Median of 45 systemically important EM corporate issuers in LatAm and EEMEA. Source: Barclays Research

FIGURE 3

EM corporate valuation relative to DM credit are not attractive (EM corp/quasi spread ratio v US: rating matched basis



Note: We calculate the spread ratio between EM corps/quasis and US credit where the contribution of US each sub-rating (eg BBB) is matched to the composition in EM (dynamically). Source: Barclays Research

- We are positive on **Brazil**, which is relatively isolated from any potential changes in US trade policies, and has significant buffers to weather external financial volatility. The real economy has stabilised, and valuations remain attractive. Our sovereign strategists believe that Brazil (OW) will outperform peers in 2017. This feeds through to our view on the country's corporates: some issuers such as BRASKM, PETBRA, BEEFBZ or BRFSBZ (all rated OW) should outperform in 2017.

In EEMEA, diverging views on the sovereign also help drive our recommendations on corporates, as follows:

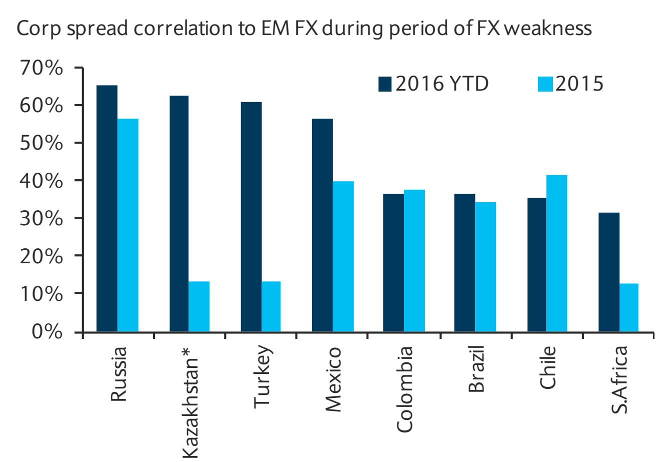
- We are positive on **Russia**: We maintain our Overweight rating on Russia sovereign credit. The better oil-price outlook for 2017, favorable supply-redemption dynamics in the Russia credit complex and relative macroeconomic stability support this view. In the Russian corporate sector, we are Overweight Russia Basic Industries as we expect those credits to outperform other Russia corporate sectors on the back of deleveraging, good free cash flow and lower exposure to fiscal risks. Our top picks include Evraz, NLMK, and Severstal (we rate all of these, as well as the Russian basic materials sector, OW). We are also positive on Russian Financials (OW), which should benefit from deeply negative net supply and improving fundamentals next year. More than 80% of the $10bn of bank paper maturing in 2017 was issued by sanctioned entities and will not be refinanced in the external bond market. Our top picks are SBERRU (OW) and VEBBNK (OW).

- **Turkey** will likely be volatile: Our economist believes that the growth slowdown has intensified, and headwinds to the medium-term growth outlook from external and domestic risks remain. However, valuations are attractive, especially banks' front end bonds. The high correlation of corporate spreads to TRY deprecation will be challenging, but our FX strategists do not expect the TRY to depreciate substantially to levels that will trigger significant fundamental deterioration for corporates and banks. We are therefore MW on Turkey corporates. For more detailed analysis of the sovereign, please see the *Turkey Quarterly Outlook: No country for the faint-hearted*, 18 November 2016.

- The **GCC complex** remains too tight in our view, as corporates offer limited pick-up relative to their sovereigns (see Figure 5): we expect total GCC sovereign supply to again exceed $30bn in 2017, with a further $17bn from corporates and banks. In the region,

FIGURE 4

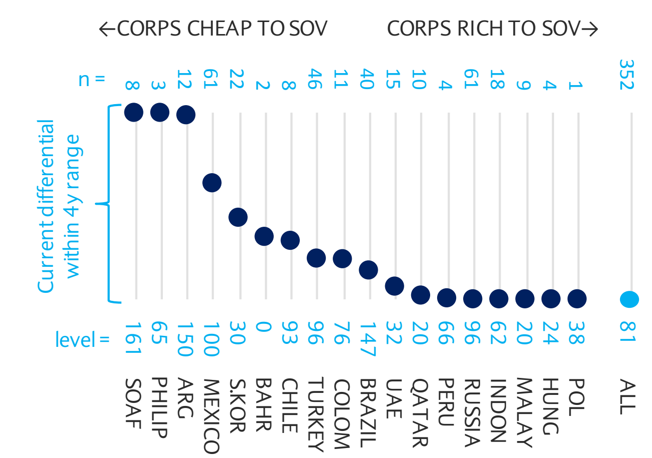
EM Corporate spread correlation to EM FX has increased in 2016, notably in Turkey and Mexico



Note: correlation based on weekly spread and FX changes during weeks of FX weakness. *Kazakhstan data distorted by the free float of the currency in Q3-15. Source: Barclays Research

FIGURE 5

Brazilian corporates continue to offer one of the highest pick-up relative to their sovereign; on the other hand, Qatar corporates trade only 20bp back from their sovereign



Note: Includes corps/quasis within 1y maturity and two rating notches to sov. Includes new issues as they come. Excludes corps downgraded to more than 2 notches below sov. Source: Barclays Research we believe that the tight spreads have less of a buffer to absorb any potential increase in US Treasuries, and corporates (notably in Qatar) are trading almost in line with their sovereigns. A move toward Basel 3 regulation should limit the local appetite for corporate bonds relative to their sovereign, given corporates' higher RWA requirements and limited spread upside / pick-up.

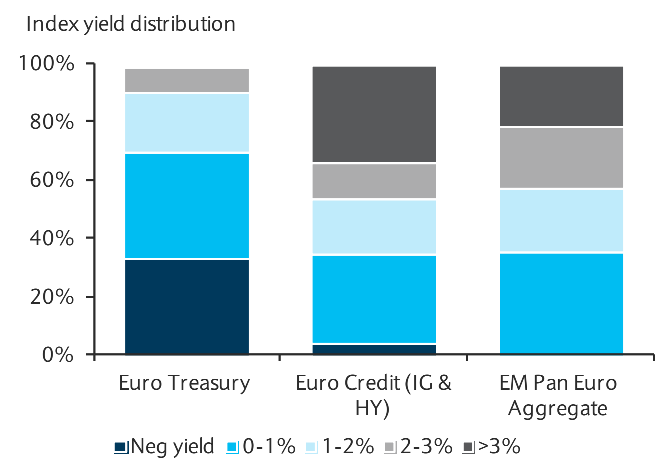
We like Emerging market EUR-denominated IG corporates

DM core yields sold off significantly following the outcome of the US presidential election. But yields in Europe remain low, particularly on the Treasury front: 65% of the sovereign EUR bonds outstanding still yield less than 1% (see Figure 6). In our central scenario, we believe that the ECB will remain accommodative until the French presidential election outcome, and will wait for clear signs of rising inflation before it starts tapering. Hence, our rates strategists expect the 10Y German bund to only gradually increase over 2017, and to trade toward 50bp by the end of next year.

This suggests, we believe, that the search for yield should continue in Europe, at least before the ECB starts potentially tapering in September 2017. EM EUR Corporates continue to offer an attractive premium relative to equivalently-rated European credit, notably for A and BBB rated companies (see Figure 7). We believe that investors should increase their exposure to EM EUR corporates that offer value relative to EUR (DM) credit while trading wider, on a spread basis, than EM USD bonds from the same issuer. We present in Figure 8 a list of bonds fulfilling both criteria.

FIGURE 6

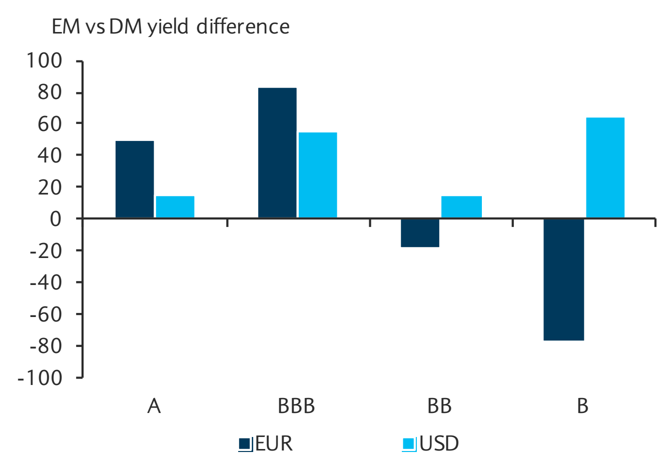
The search for yield from European investors could further benefit EM EUR corporate bonds …



Source: Barclays Research

FIGURE 7

… particularly on the IG side, as A and BBB offer decent pick-up related to same rated European credits



Note: Using yield maturity of existing EM corporate EUR bonds and US and EUR credit indices. to Source: Barclays Research

FIGURE 8

Sample of EM EUR corporates trading wider than same rated European credits and wide relative to EM USD bonds

ENTITY		Z-spread & YtD Δ				METRICS			vs EUR Credit		Rating
EUR	USD	EUR		USD		DIFF	Z-score	1Y RANGE	Equiv EUR	DIFF	
GPBRU2019	GPBRU2019	358	-163	330	-200	27	2.1	-106 / 31	252	106	BB
GARAN2019	GARAN2019	426	69	373	45	53	2.0	-26 / 68	253	174	BB
AMXLMM2019	AMXLMM2019	110	3	92	-34	18	1.3	-48 / 28	83	27	A
GAZPRU2020	GAZPRU2020	314	-135	251	-167	63	1.0	-15 / 95	282	32	BB
VEBBNK2023	VEBBNK2022	415	-96	347	-165	69	0.8	-41 / 84	337	79	BB
GAZPRU2020	GAZPRU2021	314	-135	279	-157	35	0.8	-26 / 76	282	32	BB
INTPET2021	INTPET2020	127	-11	95	-5	32	0.4	-25 / 60	54	73	AA
PETBRA2022	PETBRA2021	580	-651	449	-606	131	0.3	-1 / 203	526	54	B
VALEBZ2023	VALEBZ2022	362	-404	284	-480	78	0.1	-64 / 238	152	210	BBB
VEBBNK2018	VEBBNK2018	297	-207	275	-154	23	0.0	-35 / 100	195	102	BB
BNDES2019	BNDES2019	330	-459	247	-267	83	-0.4	27 / 285	233	97	BB
PETBRA2023	PETBRA2023	561	-523	476	-433	85	-0.4	26 / 233	480	81	B
BRFSBZ2022	BRFSBZ2023	299	-107	257	-100	42	-0.4	-24 / 167	147	152	BBB

Note: data as of 25 November 2016. Source: Barclays Research

The key factors behind the 2016 rally are set to change

Supportive monetary policy from DM central banks, the rebound in commodity prices and improving fundamentals were the main catalysts for the strong performance posted by most credit markets in 2016, and for EM corporate credit in particular.

Against this backdrop, high beta outperformed, as CCCs returned almost 25% in 2016 (as of 25 November), compared with only 7% for BBB rated issuers (see Figure 10). From a sector point of view, Metals & Mining and Oil & Gas issuers were the clear winners, compressing by c.250bp versus non-commodity credits over the year. With spreads of the EEMEA and LatAm corporate universe 160bp tighter over the year, we believe that easy gains prompted by high beta positioning is less likely going forward.

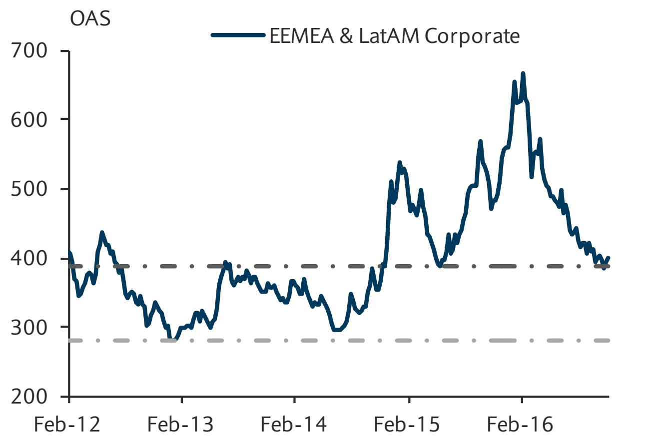
Some of these factors are set to change: 1) the EM macro momentum backdrop has improved, but risks have emerged from potential anti-globalization measures or a potential “trade war”: 2) Cross-over demand, fund flows and negative net supply for EEMEA and LatAm corporates were supporting technical factors, but a bear steepening of the US Treasury curve could jeopardize this trend (our rate strategist expect a bear flattening of the UST curve, with the 10Y increasing only modestly) 3) A steeper US yield curve and stronger dollar could raise financing costs for EM companies.

Global external factors will not be the unique driver though, as political developments are likely to trigger diverging performance: Russia is perceived by markets as the potential beneficiary of the US election, given the potential for the Trump administration to lift international sanctions; in Turkey, the ongoing purge, the potential shift to a presidential system and weaker growth could exacerbate polarization and pressure TRY; Mexico will likely face headline risks and possible tariffs related to potential Trump administration measures in 2017.

There is clearly a high dispersion of potential outcomes around political and economic development next year. In this article, we try to assess the winners and losers from these evolving “pull” and “push” factors, suggesting a country or sector allocation relying on both top down and bottom up analysis of our coverage universe.

FIGURE 9

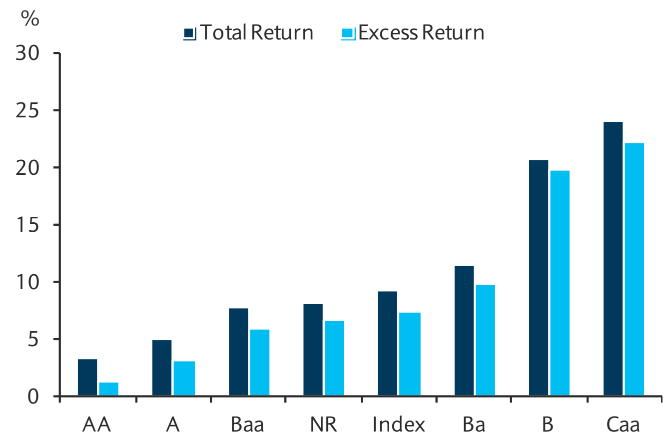
EEMEA & LatAm corporate credit spreads tightened by 160bp in 2016, but are still 100bp wide to their historical tights reached in 2012



Note: Data as of 25 November 2016. Source: Barclays Research

FIGURE 10

2016 YTD returns: lower-quality credits significantly outperformed, with CCCs generating c. 24% return



Note: Data as of 25 November 2016. Source: Barclays Research

Technicals: Negative net supply helps, but higher core yields could dampen the bid for EM corporates

Bottom-up stories in many EM countries have improved, and corporate fundamentals should be partially sheltered from the potential risks that have emerged recently. However, markets were clearly focusing on technicals during the major part of 2016, putting limited emphasis on differentiation (only 14 out of the 315 different companies in EEMEA and LatAm posted negative YTD total return). In a previous publication (see *EM Corporate Credit Top Picks: Quantifying technical support*, 29 July), we considered three different aspect of the technical factors: net supply, cross-over demand and EM hard currency fund flows; all of them being supportive at that time. In the next section, we analyse how these factors could evolve in 2017 to help assess the potential impact on secondary market spreads.

Net supply: We expect negative net supply for 2017 to be -$10/15bn

In our 2017 supply forecast (see *EM Corporate Credit Top Picks: Financing conditions will remain supportive for EM companies*, 4 November), we forecasted that EEMEA and LatAm corporates would issue $50bn and $55bn, respectively, next year. Our estimates are driven by higher commodity prices benefiting corporate balance sheets, a maintenance of international sanctions on Russia, cheaper financing conditions and increasing redemptions. Net of redemptions and coupon payments, we think that supply will be in the -$15bn to -$10bn area, with EEMEA benefitting from the strongest technicals (see Figure 11). Even if sanctions were to be eased on Russian credits, we would expect any new issuance to be primarily directed at refinancing rather than debt addition since overall investment levels remain depressed in a low oil price environment.

FIGURE 11

We expect EM USD Corporate supply to reach $270bn in 2017

	LatAm	EEMEA
Non-Financial Issuance from Earnings Growth	$25bn	$15bn*
Financial Issuance/ near-term maturities	$10bn	$15bn*
Non-financial near-Term Maturities	$15bn	$15bn*
Offerings from Debut Issuers	$5bn	$5bn
Estimated 2017 Corporate Bond Gross Issuance (a)	$55bn	$50bn
2017 Redemption (b)	$23bn	$46bn
2017 coupon (c)	$29bn	$19bn
Net supply (a-b-c)	$3bn	-$15bn

Note: *EEMEA numbers adjusted to take into account sanction-related restrictions for some Russian issuers. We used Bloomberg EBITDA growth forecast to estimate non-financial issuance from earning growth, assuming stable corporate leverage. Source: Barclays Research

Cross-over sponsorship: What goes up could come down

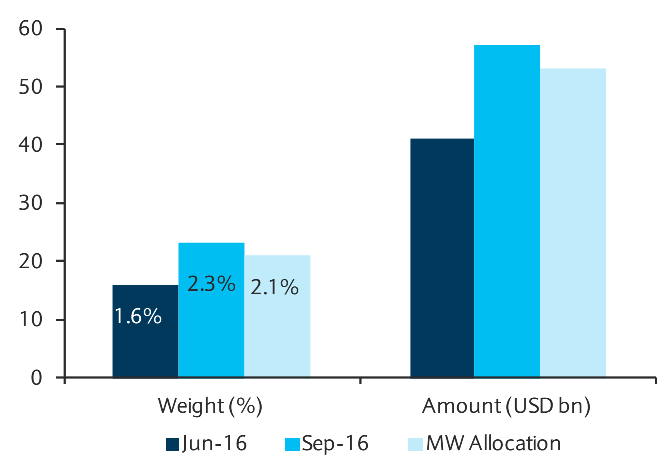
The second factor that we discussed in *EM Corporate Credit Top Picks: Financing conditions will remain supportive for EM companies* was the potential buying power from cross-over investors. Quantifying crossover holdings of EM hard-currency bonds in a comprehensive way is a notoriously difficult and imprecise exercise. However, comparing current versus historical holdings of EM bonds and benchmark weights for two traditional sources of crossover sponsorship – US IG and US HY funds – can give an indication of crossover engagement, in our view.

During the summer, it appears that our sample of US IG funds (tracking the Bloomberg Barclays US Agg index), totalling an AuM of $850bn, have closed their UW in EM credit: in June 2016, EM credit exposure of US IG funds accounted for 1.6% of their total AuM, compared with 2.1% benchmark weight (see Figure 12). As of September 2016, this share increased to 2.3%, signalling that funds are running a MW allocation to EM credit in their portfolios.

US HY fund managers have traditionally been exposed to EM through non-benchmark holdings in a limited number of LatAm companies specifically. As most US HY benchmark indices exclude EM issuers, we analyze the published holdings of some major US HY funds,

FIGURE 12

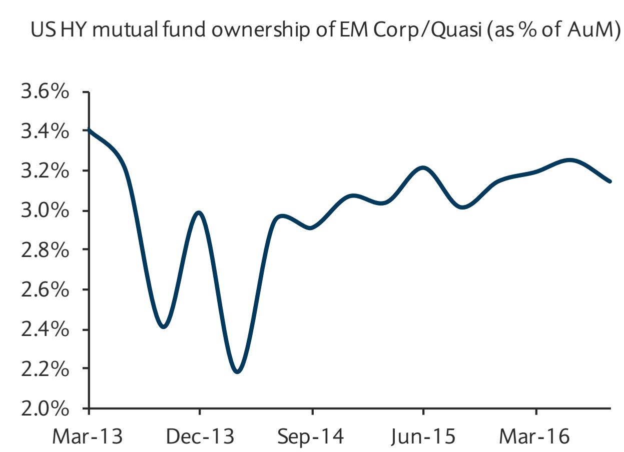
US IG funds have increased their exposure to EM credit during the summer, and have now a MW allocation (compared with an UW during the summer)



Note: based on top 21 US IG funds holding totaling $850bn AuM.
Source: Barclays Research

FIGURE 13

US HY funds have slightly decreased their exposure to EM credit during the past months



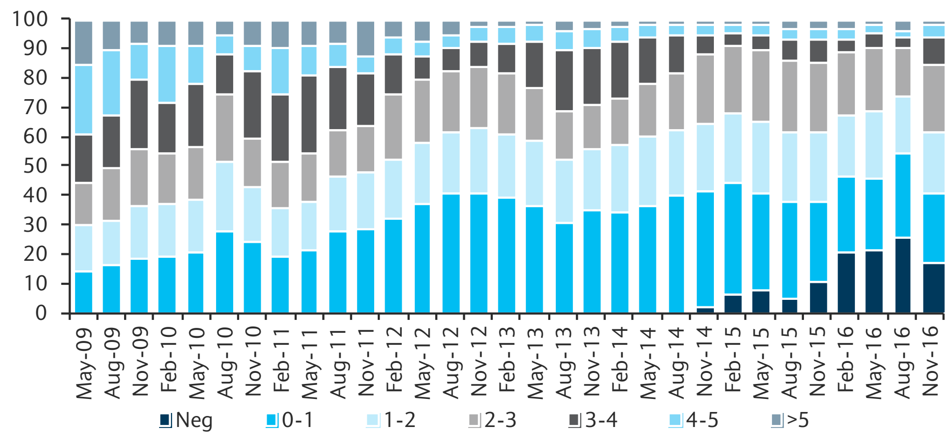
Note: Based on a sample of top 20 US HY funds, totaling $145bn AuM.
Source: Barclays Research

and compare these holdings with historical levels. Out of a total AuM of $145bn in our sample, these funds have an exposure of $4bn to EM corporate and quasi-sovereign issuers, corresponding to 3.1% of their AuM. Although it has recently decreased, the exposure seems relatively high compared with the previous years (see Figure 13).

In prior notes, we have argued that the low yield environment was one of the key reasons behind this increasing cross-over demand for EM corporate credit. But it seems that the recent sell-off in DM core yields might have reshuffled this source of demand: only 40% of the bonds sitting in the Bloomberg Barclays Global Agg index are yielding less than 1%, compared with c. 55% in the immediate aftermath of the Brexit vote. The share of bonds yielding 3-4% has also significantly increased to almost 10%, compared with 4% in August 2016 (see Figure 14). In our view, a further rise in DM core yields could lead to a reversal of the technical bid, and funds may focus on US credit offering higher yield and with better growth prospects after the US presidential election outcome (see *US Economic Outlook: Chart Deck*, 15 November).

FIGURE 14

Only 40% of the Global Agg index yield less than 1%, down from 55% in August 2016



Note: Bloomberg Barclays Global Agg index yield distribution by market value. Source: Barclays Research

With EM corporates offering an average spread of 1.2x only compared with same rated US credits (see Figure 15), we do not see much upside from the cross-over technical support, and see chances that this flow could revert if the sentiment toward EM weakens due to anti-globalization measures. In that case, LatAm corporates are more vulnerable than those in EEMEA, as the US community has been traditionally more geared toward LatAm, with significant exposure to issuers like PEMEX, VALEBZ, AMXLMM or the IG side and PETBRA, DLLTD, CEMEX or JBSSBZ on the HY side.

FIGURE 15

EM corporate/quasi versus US differentials: ratings matched basis: Average EM corporate credit spreads 1.2x higher than US credit might not be enough to support further cross-over demand, although some jurisdictions offers value

	Composition	Spread	Equiv. US	bp discount	x discount	Range
BRAZIL	BBB BB <B	499	352	147	1.4	0.7 – 2.6
CHILE	>A BBB	227	160	66	1.4	0.64 – 1.72
CHINA	>A BBB	177	137	40	1.3	0.88 – 2.46
COLOMBIA	BBB BB	347	210	137	1.7	0.43 – 2.13
HONG KONG	>A BBB	157	123	34	1.3	0.93 – 1.99
INDIA	BBB	222	202	19	1.1	0.73 – 2.1
INDONESIA	BBB	312	185	127	1.7	0.51 – 2.35
KAZAKHSTAN	BBB BB	389	239	150	1.6	1.12 – 3.34
MEXICO	>A BBB	340	181	159	1.9	0.81 – 1.88
PERU	BBB	229	180	49	1.3	0.89 – 1.94
QATAR	>A	136	99	37	1.4	0.75 – 1.82
RUSSIA	BB	356	287	70	1.2	1 – 3.9
TURKEY	BBB	414	261	153	1.6	0.75 – 2.26
UNITED ARAB EMIRATES	>A BBB	177	108	69	1.6	1.26 – 7.45
GLOBAL EM CORPS	>A BBB BB <B	293	240	60	1.2	1.03 – 1.88

Note: Range since 2006. We calculate the "equivalent US spread" by weighting the spread of US credit segments (from AAA to CCC) at each point in time (dynamically) to match each EM country's composition. Source: Barclays Research

Flows: The rise of ETFs creates technical risks where corporates suffer less than sovereigns

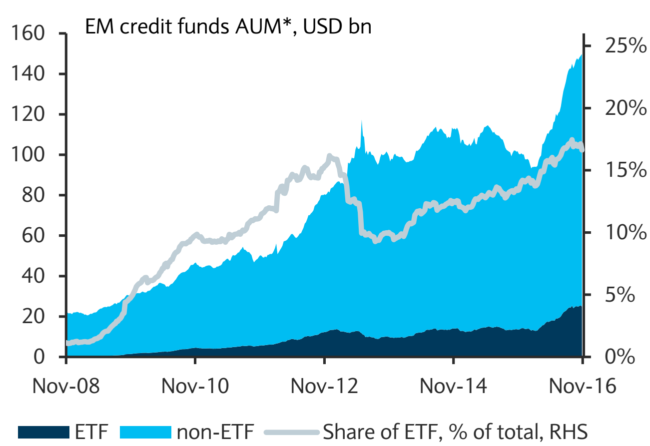
The third factor relevant for the overall technical picture is flows into EM bond funds. We have already highlighted that flows tend to track returns (*A roadmap for EM credit fund flows*, 15 April 2016). Thus, the positive return momentum for EM credit in 2016 has prompted significant inflows into the asset class, particularly into EM hard currency bond funds.

We think one technical consideration also requires attention: the increasing importance of ETFs and passive mandates. The share of passive funds in EM credit has risen rapidly and now constitutes c.20% of EM credit AUM (Figure 16). Any reversal of flows, for example as seen during the 2013 taper tantrum and during the past two weeks, could lead to a self-reinforcing selling cycle – the need for rapid liquidations depressing performance, leading to further outflows – which seems set to structurally exacerbate market volatility and hence depress volatility-adjusted returns.

However, EM corporate credits should suffer less than sovereigns: most ETFs are tracking EM sovereign indices rather than corporate ones (see Figure 17). Hence, outflows from ETFs could lead to an outperformance of corporates, as testified by the price action following the US

FIGURE 16

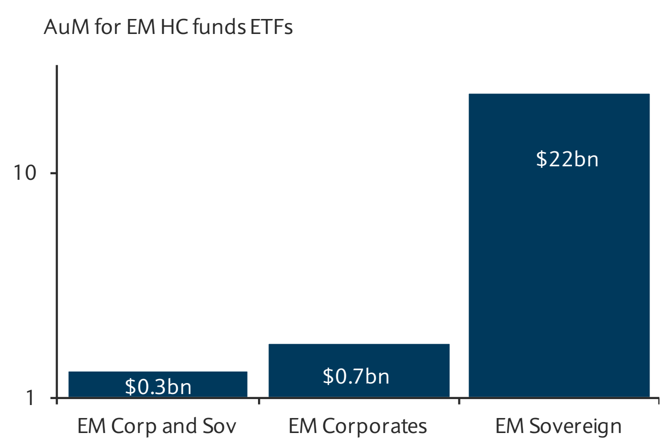
The rise of EM credit ETFs could exacerbate market volatility…



Note:*as reported by EPFR. Source: EPFR, Barclays Research

FIGURE 17

… but mostly for EM sovereigns, as the majority of ETFs are tracking EM sovereign indices rather than corporates



Source: EPFR, Barclays Research

elections. That said, once the flows environment stabilizes, corporates should reverse part of this outperformance, as investors often consider the pick-up of a corporate relative to its sovereign as a signal for buying or selling the security.

Improving growth, stabilizing corporate fundamentals, but with downside risks post-US elections

We expect EEMEA and LatAm growth to pick up in 2017…

EM PMIs have recently shown some signs of improvement (see Figure 18), with higher commodity prices providing support for EM exports. Domestic growth momentum in many EM countries has picked up pace, producing some resilience to potential worsening external conditions.

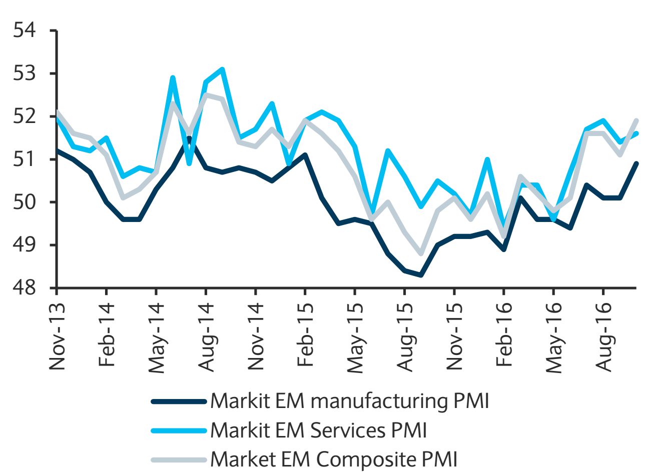
From a growth perspective, our economists expect EM growth to accelerate to 4.9% in 2017 from 4.3% this year (see Figure 19), partly driven by the sanguine forecast for oil prices (our commodity colleagues expect Brent to average 57$/bbl in 2017). This pick-up in pace is even greater when accounting for EM corporate-relevant country weights: for the EM corporate index, growth is expected to pick up by 0.9pp in 2017, to 3.5% from 2.6%. Focusing on EEMEA and LatAm regions exclusively provides additional support: growth should increase by 1.7pp in 2017, from 0.1% to 1.8%. Although levels remain far below their long-term average, the growth momentum is clearly supportive for the asset class.

…leading to rating stabilization

The consequences of lower commodity prices on EM credit metrics over the past two years have been significant: several countries faced fiscal slippage, while corporate leverage increased for several consecutive quarters. Rating agencies have quickly reacted to these weaker fundamentals: in 2016, $410bn of EM debt faced at least a one-notch downgrade (based on the median issuer rating, including sovereign), compared with $360bn in 2015 (see Figure 20). Turkey, Brazil and several major commodity-related issuers such as PETBRA, SINOPE, CNOOC or VALEBZ are among the largest names that faced negative rating action in 2016. However, we believe that this trend should slow going into 2017.

FIGURE 18

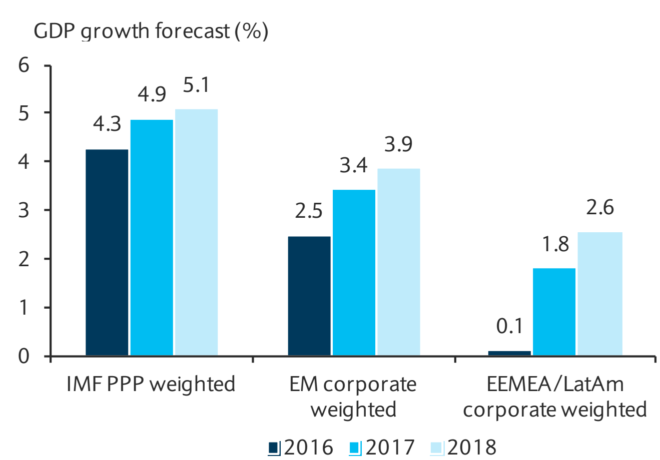
Emerging market manufacturing and service sector confidence gauges point to some resilience



Source: Bloomberg, Markit, Barclays Research

FIGURE 19

We expect growth to pick up in 2017 even faster for EM corporate index-related countries, particularly in EEMEA and LatAm



Note: GDP based on Barclays economists' forecasts; countries used in this calculation comprise 90% of the EM corporate index and 85% of the LatAm and EEMEA corporate universe. Source: Barclays Research

Higher commodity prices and better growth have recently helped consolidate fiscal dynamics and stabilized corporate leverage ratios. The further improvement that we expect on the sovereign and corporate side should limit the potential candidates for rating downgrades.

Our sovereign strategists view South Africa (SOAF, UW) as the most likely to face rating downgrades by year end, potentially losing its IG status in 2017. We believe this should have a limited impact on the overall EM corporate market, as South African corporates have only $14bn of debt sitting in the EM Corp indices, with ESKOM - the largest corporate issuer of the country – already rated several notches below its sovereign.

Downside risks to our central scenario have emerged post-US elections

The outcome of the US presidential elections has created potential downside risks for several EM economies, with a wide dispersion of outcomes from our growth forecasts. In our EM Quarterly, we identified two negative implications from the likely fiscal stimulus and anti-globalization politics that the Trump administration could adopt (see *The Emerging Markets Quarterly: Finding a footing in political crosswinds*, 18 November):

Growth implications

EM's share of global exports has risen, and most have increased their engagement in global value chains (see Figure 21). Since they now have much to lose from protectionism, it is not entirely surprising that EM markets have reacted negatively to the outcome of the US presidential elections.

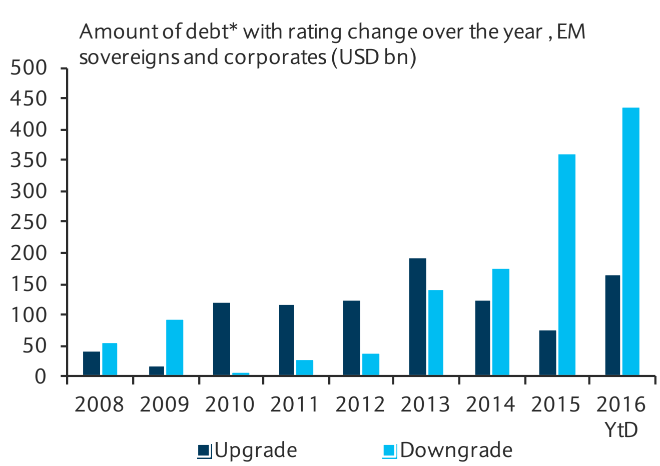
US President-elect Trump's key policy proposals have included:

- to introduce tariffs on imports from Mexico and China;
- to halt, renegotiate or exit free trade agreements (TPP, NAFTA, KORUS);
- to tax US companies that outsource production; and
- to curb migration and potentially tax migrants' remittances.

Although there is high uncertainty as to the degree to which these proposals will be implemented, some countries are more at risks than others: LatAm is clearly most exposed to the US: Mexico sends almost 80% of its total exports to the US (see Figure 22), followed by CAC countries.

FIGURE 20

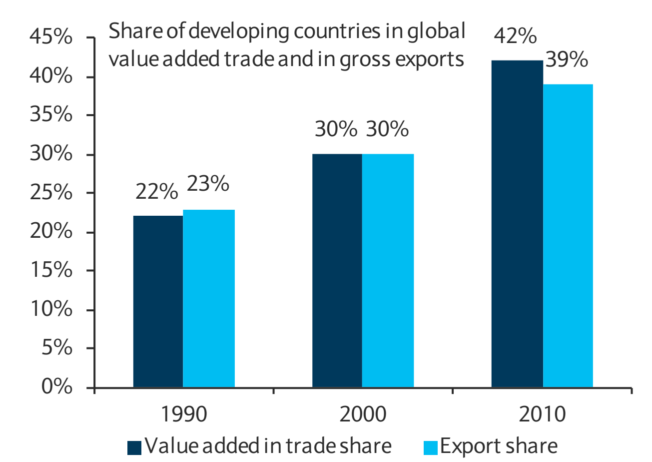
The rating trend in EM has been very negative – we expect 2017 to look better



Note;* based on the Bloomberg Barclays USD EM Agg index. Source: Barclays Research

FIGURE 21

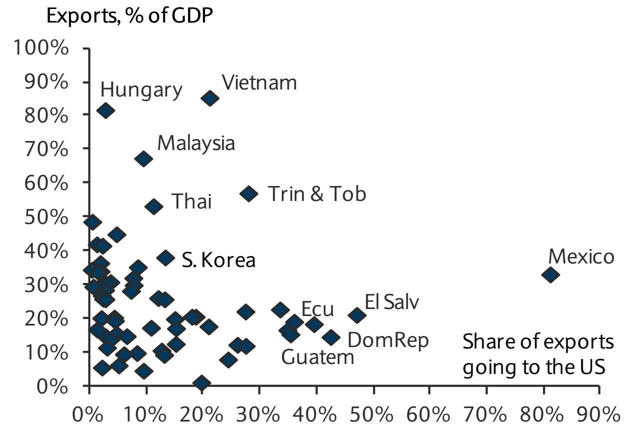
EMs increased their share in global trade and its value added



Source: UNCTAD, Barclays Research

FIGURE 22

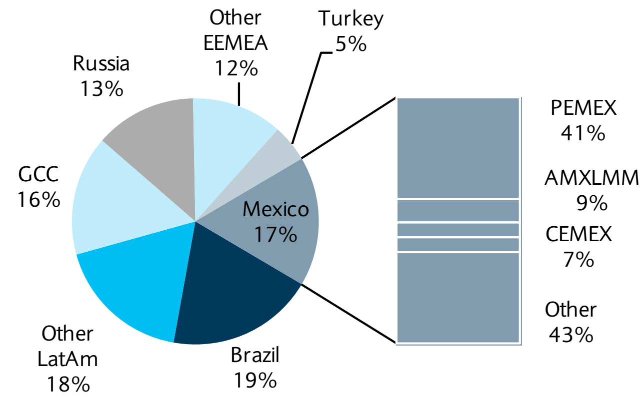
Mexico, CAC, open Asian economies appear vulnerable to potential US protectionism



Source: IMF, WTO, Barclays Research

FIGURE 23

EEMEA and LatAm corporate universe breakdown: Mexico only accounts for 17% of the universe, with PEMEX a major component



Note: EEMEA and LatAm USD corporate complex breakdown by market value.
Source: Barclays Research

In terms of FDI, the region is also exposed; Mexico gets 47% of FDI from the US. Furthermore, the adverse effects of the US President–elect's policies could worsen in the case of 'trade wars'. For example, if China is declared a currency manipulator, it could retaliate by weakening its currency. Our economists believe that such a scenario remains very unlikely, since it could lead to a resumption of heavy capital outflows from China and threaten domestic stability (see *Global Outlook: Turning point*, 17 November).

Market implications

We expect EM FX to weaken versus USD

We view the recent bear steepening of DM yield curves and USD strength as weighing on sentiment toward EM. We expect pressure on portfolio flows to return, and countries where current account deficits are not fully financed by FDI flows are likely to bear the brunt. We believe that the EM carry trade is likely to come under pressure, and expect EM FX to remain weak over a 12-month horizon, especially the MXN, COP, BRL, TRY and ZAR.

Mexican corporates in focus

Mexico and CAC countries are the potential "losers" of President-elect Trump's election given the protectionist rhetoric from the campaign trail and comments targeting remittances. For corporate-relevant indices, the Mexican corporate credit complex accounts for 17% of the EEMEA and LatAm corporate universe (the share decreases to 10% of the Bloomberg Barclays EM USD Corp/Quasi index, though China and other Asia open economies, which are more represented in that index, are also at risk) – with Central America having a much smaller presence. Almost 40% of the Mexico complex is PEMEX (see Figure 23). Pemex is largely insulated from the implications of the US election, given its domestic focus and credit-specific drivers including production, its pension liability and government support (See *US election risks: Opportunities in Mexican credit* from 28 September 2016). But we also think that the Mexican energy reform is a key catalyst for the credit as it is intended to help the company focus on core, profitable activities and monetize assets – and most of that activity is dependent on participation by US energy companies.

Pemex management has expressed confidence that the bilateral nature of collaboration in E&P will protect it against increased volatility stemming from trade negotiations – and the fact that the energy sector is not part of NAFTA – but we think the market will price in the increased uncertainty until and unless positive results of the upcoming auction rounds are seen.

We also think that less trade between the US and Mexico and/or delayed investments in Mexico's exporting sector would likely have the most negative implications for the REIT sector, specifically those that are less diversified and concentrated in trade-oriented regions (eg, Terrafina). TERRAF assets are concentrated in the manufacturing, industrial and distribution sectors, with 55% of gross lease area (GLA) located in Mexico's north region.

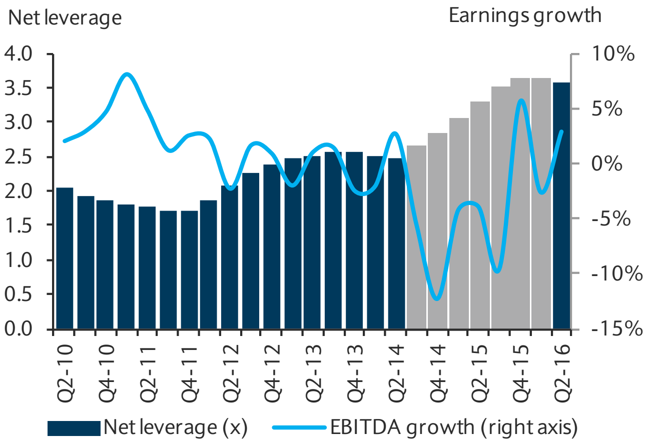
In our base case scenario, we expect fundamentals to stabilize/improve and default rates to remain low

Growth is facing potential downside risks, EM FX could weaken relative to the dollar, technical support could clearly abate in 2017 and EM corporate yields are 180bp lower than when they started the year. In our view, this leaves credit spreads more vulnerable to any potential negative news.

However, in our base case scenario, we think that spreads in 2017 will be anchored by fundamental trends, and that the recent stabilization of corporate leverage (see Figure 24) should support valuations. We discuss below our 2017 fundamental outlook for the different sectors that are covered by our analysts.

FIGURE 24

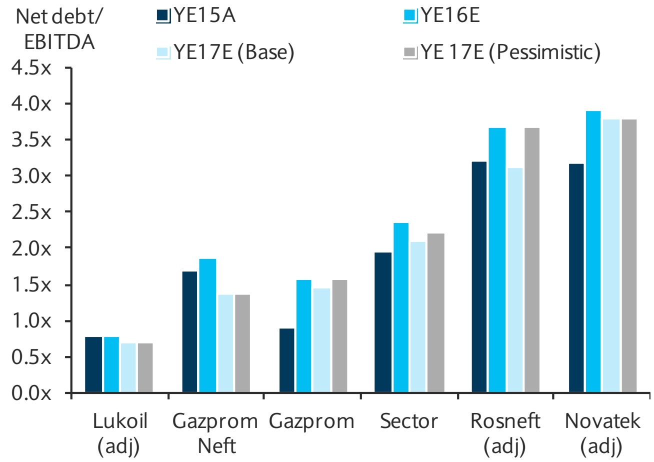
Average EM corporate fundamentals stabilized in Q2 16



Note: Median of 45 systemically important EM corporate issuers in LatAm and EEMEA. Source: Barclays Research

FIGURE 25

Russian oil and gas net leverage trajectory shaped by fiscal risks



Note: Rosneft adjusted for prepayments, Novatek for off balance sheet liabilities; Lukoil is ex-Iraq. Assumes Brent c$51/bbl and USDRUB of 67. Assumes 3% output cut as per OPEC. Source: Company reports, Barclays Research

2017 fundamental outlook: A resilient outlook with some pockets of strength, vulnerability

EEMEA

For commodity exporting countries and corporates, the impact of weaker FX relative to the dollar should be positive (Russian oil and gas, Russia metals, Ukraine metals), but domestic-oriented corporates in those economies could suffer (Russia Telecoms, Kazakh Rail, DTEK). Turkish corporates could be negatively affected if the TRY depreciates toward TRY 4 versus USD, while the peg with the USD shelters GCC corporates from FX risks. We discuss in more detail below our fundamental outlooks by sector:

Russia Energy and Infrastructure: Taking into account current oil market conditions (Brent of c$50/bbl) and the expectations our FX strategists that the RUB will weaken slightly going into 2017 (see *Russia Quarterly Outlook: Fiscal rule or political dominance*, 18 November 2016), the underlying fundamental picture for Russian oil and gas credit is resilient given most operating costs and capex are RUB-denominated. While there remains differentiation in credit quality across names – Rosneft will remain highly levered and Lukoil the opposite – in our base case, sector net leverage will fall slightly y/y in 2017. However, fiscal-related risks given budgetary pressures at the sovereign level raise idiosyncratic risks, such as the possibility that Rosneft may purchase 20% of its own shares, or that Gazprom may be required to pay dividends equal to 50% of IFRS net income. In the latter case, net leverage could creep slightly higher in 2017 than in the base case (pessimistic scenario, Figure 25). This balance of fundamental trends, and current valuations, keep us MW the sector.

Russia Basic Industries: We believe the sector as a whole can de-lever at spot prices. Commodities prices have improved significantly YTD, and costs are low across the sector as RUB remains weak. The sector is also better protected against the fiscal risks facing other Russian corporates, such as the oil and gas sector, as their revenues are lower in aggregate, and their commodity exposures are wider, reducing the efficacy of any potential taxation. The sector also benefits from high cash balances, low short-term debt, and access to a resilient banking sector, which we expect will continue to support these credits in 2017.

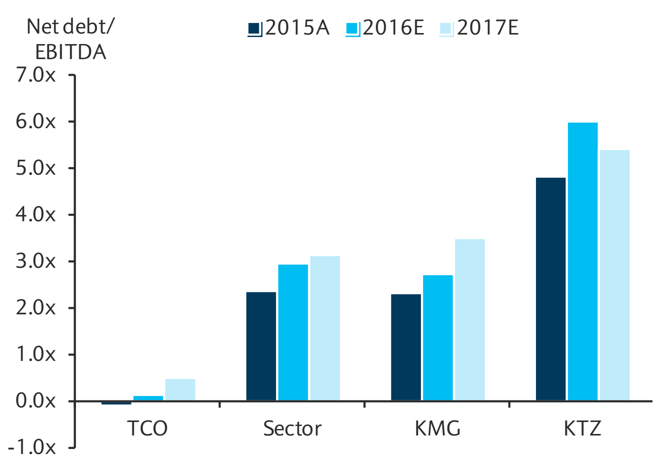
EEMEA Telecoms: Among the major Russian corporate sectors, Telecoms stands out as the sector negatively exposed to any weakness in EM FX given that issuers have issued USD debt but earnings are entirely denominated in local currencies. VIP screens as the most vulnerable from this perspective given its higher share of USD debt in the capital structure (c74%) relative to MTS (c27%), which is much better hedged. VIP and GTH spreads already reflect some of these risks, although there could be some volatility dependent on the currency trajectory, keeping us MW the sector.

Kazakhstan Corporates: We expect fundamental trends across Kazakh credit to be mixed in 2017. KMG continues to have investment needs while earnings remain low, hence we expect an increase in net leverage in 2017 to c3.5x from (c3.0x expected at YE16). Given KMG balanced exposure to both local and export businesses, we expect any weakness in the tenge to be broadly neutral for its credit profile. We expect KTZ to be able to reduce net leverage slightly in 2017 towards c5x from the c6x we expect at YE16; however, given that its debt load remain mostly in FX (c75%) while earnings are mostly local, any material tenge weakness would be negative for its profile. Tengizchevroil is likely to see net leverage rise in 2017 (Figure 26) as it borrows to finance its large investment project. Aggregate weak standalone credit quality amid a supportive sovereign backdrop keeps us MW the sector.

Ukraine Corporates: We see the recent rise in iron ore and steel prices as likely to provide a boost for fundamentals of the Ukraine corporate segment in 2017 given that two out of the four issuers we cover, Metinvest and Ferrexpo, operate in this segment. Both would also be positively exposed to any weakness in the UAH given that revenues are mostly in FX, but costs mostly in UAH. MHP has a more mixed exposure to both the domestic and export sectors; however, the export share has grown in recent years (to c50% of revenues from c40%), while costs remain mostly UAH, hence we see the credit as broadly neutrally exposed to UAH weakness. While DTEK is also benefitting from the recent rise in coal prices given a link with final electricity prices, this move could prove to be short lived, while the credit remains negatively exposed to weaker UAH given its mostly local earnings and predominantly FX-denominated debt. We rate the sector UW primarily on the valuation of DTEK, which we think is too high, dragging down aggregate return prospects.

FIGURE 26

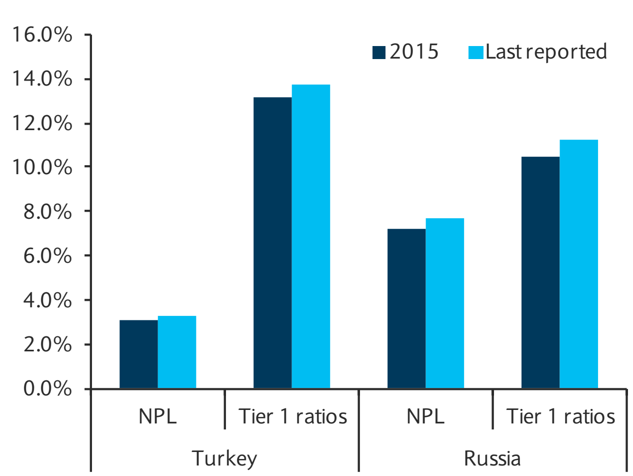
Mixed net leverage outlook for Kazakh Corporates



Note: Assumes Brent c$51/bbl and USDKZT at spot. Source: Company reports, Barclays Research

FIGURE 27

In Russia, we expect NPLs to drift down 2017 and further improvement in asset quality; In Turkey, 2017 will be more challenging



Note: Turkey based on BRSA, Russia average of banks under coverage. Source: BRSA, Barclays Research, Company reports

GCC Corporates: Despite low oil prices partially dampening the prospects of macroeconomic growth, GCC corporate fundamentals have generally proved relatively resilient. Cautious financial policies have limited the deterioration in debt leverages levels. We expect this largely to continue into 2017, with corporates partly insulated from volatility in EM FX given the currency pegs across the region (demand growth from some EM markets in sectors such as real estate and retail could weaken). Corporates also retain good market access, which keeps refinancing prospects healthy. We rate the sector UW primarily on still outstanding supply plans from sovereigns in the region, which can contain spread performance in the near-term.

Turkey Corporates
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Turkey Corporates: We downgrade the Turkey Corporates sector to MW from OW. While we think valuations screen as attractive to comparable credit buckets in EM, we believe this is partly offset by the recent outperformance over the Turkey sovereign and in particular over Turkey banks. We also draw attention to the more concerning headwinds faced by the corporate credits from a macroeconomic and a political perspective. The heightened currency volatility, growing risks to domestic demand growth, risks to the country political relationship with the EU (main export market), and the greater unpredictability at the political level are also likely to increase the pressure on fundamentals as well as on the IG ratings that some companies were able to retain so far at rating agencies, in our view.

From a currency perspective, Turkey corporates screen within the EEMEA coverage universe among those more exposed to weaker EM FX given the recent weakness in USDTRY and a moderately negative earnings/debt mix across the sector because of the lack of significant export earnings in USD for most names. Our currency strategists expect USDTRY to end 2016 at 3.36 and 2017 at 3.5 (see *Turkey Quarterly Outlook: No country for the faint-hearted*, 18 November 2016). This could, with the potentially weaker domestic growth, put some pressure on net debt leverage across the sector. Most Turkish corporate credits reported net leverage levels below 2.0x as of September 2016 but could see their leverage increase by up to 0.3x-0.5x by year-end. While we see this as overall manageable for the corporates, they would be more vulnerable if there were to be further pressure on TRY, for example if USDTRY were to move above 4.0 (vs. 3.4 currently).

Nonetheless, these credits should retain an adequate liquidity, satisfactory interest charge cover (>2.0x) while displaying, from a local currency perspective, relatively defensive business profiles (telecoms, diversified operations and exports). Some also have partial FX buffers in the form of FX-denominated cash balances or partial currency hedges. Near-term maturities also appear manageable, with no Eurobonds due in 2017.

Russia Financials: We expect bank fundamentals to continue improving in 2017. The asset quality cycle turned in the middle of 2016, and we expect NPLs to start drifting down in 2017, although cost of risk may remain elevated for some banks as they prepare for the introduction of IFRS 9 on 1 January 2018. Profitability could see another boost from the resumption of CBR rate cuts in 2017 with Barclays' economists expecting the key rate to be lowered to 8.5% by Q3 2017 from the current 10%. Further, we expect the banks to remain focused on costs and fee income growth.

We expect capital accumulation to remain firmly on the bank agenda with five out of seven banks under our coverage regulated by the CBR still below the 2019 fully loaded Basel 3 Tier 1 ratio requirements. As a result, most banks should limit their dividend payouts and focus on RWA optimization until they reach their capital targets, although some may choose to get to the targets quicker by raising equity capital or issuing AT1 either in the domestic or in the eurobond market (although the latter is currently open only to credits not subject to debt sanctions). We rate the sector Overweight and aside from improving fundamentals expect valuations to be supported by a strong negative supply technical with more than $10bn of bank eurobonds maturing in 2017, the majority of which was issued by sanctioned entities. Our preferred credits are SBERRU and VEBBNK.

FIGURE 28

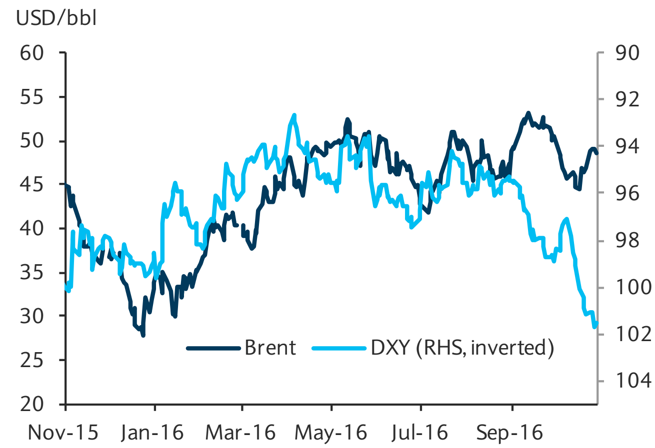
We expect all major EEMEA and LatAM corporate relevant currencies to weaken versus USD

	Spot	End Q4 16	End Q1 17	End Q2 17	End Q3 17	End Q4 17
USDBRL	3.42	3.45	3.5	3.55	3.8	3.8
USDMXN	20.32	21.5	21.5	21.5	21.5	21.5
USDCOP	3137	3200	3225	3250	3275	3300
USDRUB	64.9	67	68	69	70	70
USDTRY	3.32	3.36	3.42	3.45	3.45	3.5
USDZAR	14.3	15.2	15.4	15.5	15.75	15.75

Note: data as of 17 November. Source: Barclays Research

FIGURE 29

The recent strengthening in USD (weaker EM FX) and stable oil prices is positive for commodity exporters' balance sheet



Source: Barclays Research

Turkey Financials: We expect 2017 to be a more challenging year for the Turkish banks than 2016. NIMs are unlikely to improve further and could come under pressure if deposits dollarize; and cost of risk could gradually rise as asset quality deteriorates and the banks move to IFRS 9. However, we expect the banks to remain profitable and to utilize their excess general and free reserves to absorb additional provisioning requirements. While the TRY depreciation to date is likely to make servicing FX loans harder for the borrowers, we do not expect FX asset quality to be an issue for the sector until at least 2018. Further, while capital ratios could also remain under pressure if TRY continues to depreciate and if Fitch downgrades the sovereign to sub-investment grade, we believe all of the banks will retain sizeable buffers over the 2017 regulatory capital requirements with the possible exception of YKBNK and EXCRTU, which we rate Underweight. Our preferred credits are ISCTR, VAKBN and FINBN.

LatAm

The LatAm corporate universe has a heavy presence of commodities, which are largely exporters and thus benefit broadly from the effect of weaker FX making local input costs cheaper. Our top sector picks include the *chemicals producers*, which will enjoy better margins as costs are slightly lower (some raw materials are denominated in USD) against USD-denominated revenues. This will add to the positive momentum the sector is already seeing from feedstock inputs derived from oil and shale gas leading to robust margins. Similarly, the *Brazilian protein producers* that export most of their product will benefit from better spreads as the international demand for protein is expected to remain strong and new markets open. Even our two *UW sectors, pulp & paper and metals & mining*, are likely to be buoyed by depreciated FX as the majority of production costs are in local currency while revenues are entirely denominated in USD.

We think FX movements will have a mixed effect on the *LatAm oil & gas* sector given that most are quasi-sovereigns and many have their prices set artificially in local terms. While many costs and financial expenses are in USD across the board, the revenues are a mixed group. For example, Ecopetrol and Pemex prices are benchmarked to international levels but paid in local currency, Petrobras prices are currently maintained above international ones but denominated in BRL (and beginning a process to converge to market prices), and OCENSA, which rounds out our coverage, executes contracts in USD.

The losers, in our opinion, are the companies with businesses locally and thus an inherent mismatch, including those for which we maintain a positive outlook because of other drivers. *TMT*, for example, has a stabilizing competitive and regulatory backdrop in Mexico and improving credit stories in the Caribbean, but local currency-denominated revenues and hard currency debt. Similarly, non-exporting consumer producers have the same dynamics and also some USD-denominated raw materials. *Sigma (UW)*, in Mexico, could get doubly-punished since in addition to weaker LC revenues, consumers could reduce consumption of traditional meat-based proteins in the case of slower economic growth and/or remittances. This trading down to alternative protein sources (including beans), would negatively affect the food producer.

LatAm Banks: Based on higher to stable GDP growth for LatAm in 2017, we expect asset quality to remain stable across the region next year; however, this is a mixed bag. In Brazil, we expect to continue to see a divergence in asset quality trends between Federal and privately-owned banks and, although is not our base case scenario, in Mexico it is reasonable to think that we could see asset quality deterioration on the back of lower growth and higher unemployment in reaction to negative consequences of the US elections. We expect the Andean region to remain relatively stable but remain vigilant on Colombian banks due to their sizable exposure to riskier countries in Central America.

LatAm Pulp & Paper: We believe performance across the LatAm pulp and paper sector will continue to be mixed in 2017, following weaker underlying fundamentals in 2016. Hardwood pulp prices will continue to dictate operating performance for many of the Brazilian operators (and to an extent, CMPCCI as well), given their business models and recent capacity expansion. We believe that hardwood pulp prices could remain under pressure (although certain price increases have been implemented in recent months), reflecting concerns around additional capacity coming online in 2017. In a scenario of continued weak pulp prices, we believe pure market-pulp operators (including FIBRBZ and ECELUP) will continue to be most affected. Similarly, CMPCCI would also be affected, as c. 50% of its revenues are linked to pulp and forestry products. The key risk to our view would be weaker currencies (including the BRL), which materially boosts P&P companies' FCF generation. Other operators (including SUZANO and KLAB) would also be affected, as a portion of their revenues are generated from market pulp sales. As a matter of fact, KLAB faces a potential downgrade (nr/BB+/BBB-), reflecting slower-than-expected deleveraging as a result of weaker pulp prices. However, we believe their business models are more resilient given their revenue breakdown and end-markets.

LatAm TMT: We expect fundamentals across the sector to vary by country and region. In Mexico, we believe the competitive environment is easing marginally, which could provide some relief for AMXLMM. In Colombia, we expect mobile competition to remain challenging, which will negatively impact operators in the country (including AMXLMM, MIICF (MW) and COLTEL), but cable demand will remain relatively resilient. We believe DLLTD will continue to face FX headwinds over the next few quarters, but believe an improved backdrop will benefit results in FY 2018 (year-ending March 2018). As a whole, we believe the sector will continue to be affected by FX pressures and hard-currency denominated capital structures, but believe this will be mostly offset by price increases.

LatAm Metals & Mining: We hold a cautious view on the LatAm Metals & Mining sector since we expect commodity price volatility will continue to dictate fundamentals across the sector. As copper and iron ore prices jumped c.20% and c.30% during the past four weeks mainly based on the expectation of the massively increasing U.S. infrastructure spending, the rally appears rather speculative given a large degree of uncertainty underlying any such plans. Meanwhile, price fluctuations continue to alter the run-rate credit metrics and show no signs of abating. Additionally, we believe technical factors favoring EM, including institutional inflows to the asset class, the search for yield and negative net bond supply have excessively supported performance in 2016. Some of these factors have shown signs of reversal and could affect performance in 2017 if the recent negative momentum persists. That said, we see various opportunities across the SCCO, GGBRBZ and CSNABZ curves as combinations of either favorable cost positions, strong liquidity or commodity price tailwinds leave room for cautious optimism.

Sector recommendations:

Our sector recommendation views are summarized in the table below:

FIGURE 30

EEMEA and LatAm Sectors and OW/UW ratings

Sector	Sector rating	Overweights	Underweights
LatAm			
LatAm Oil & Gas	Overweight	OCENSA,PETBRA	
LatAm Telecom, Media & Technology	Overweight	DLLTD	
LatAm Chemicals	Overweight	BRASKM,ALPEKA	
LatAm Financials	Market Weight	COFIDCC1,CORBAN,BCICI,BBVASM,MIVIVI	DAVIVI,BANBOG,BCOLO,BRADES,BANBRA
LatAm Consumer and Retail	Market Weight	BEEFBZ,BRFSBZ	SIGMA
LatAm Industrials	Market Weight		TNEMAK
LatAm Metals & Mining	Underweight		CDEL,CSNABZ
LatAm Pulp & Paper	Underweight		
EEMEA			
Russia Basic Industries	Overweight	CHMFRU,EVRAZ,NLMKRU	PGILLN,TRUBRU
Russia Financials	Overweight	SBERRU,VEBBNK	PROMBK,VTB
Turkey Corporates	Market Weight	KCHOL,TUPRST,TURKTI	AEFES,CCOLAT
EEMEA Telecoms	Market Weight	VIP	MOBTEL
Kazakhstan Corporate Credit	Market Weight	TENGIZ	KTZKZ
Russia Energy & Infrastructure	Market Weight	GAZPRU,LUKOIL	ROSNRM,SCFRU,TMENRU
Turkey Financials	Market Weight	FINBN,ISCTR,VAKBN	EXCRTU,YKBNK
GCC Corporates	Underweight	DUBAIH,EMIRAT,JAFZSK,QGTS	DARALA,EMAAR,INTPET,MUBAUH,QTELQD,SECO
Ukraine Corporate Credit	Underweight	METINV,MHPSA	DTEKUA

Note: This table lists all the sector ratings, as well as the individual Overweight and Underweight ratings within each sector of our EM fundamental credit analysts. For a definition of the Barclays Research corporate credit rating system in LatAm and EEMEA, respectively, please refer to the disclosure section of this report. All sectors in EEMEA and LatAm rated against EM USD Corp/Quasi index. Source: Barclays Research

Fundamental stabilization should support fewer defaults in 2017

The stabilization of the fundamental picture for EEMEA and LatAm corporates in 2017, alongside supportive financing conditions should limit potential defaults next year, in our view.

Default forecast methodology

Based on the EM high yield corporate universe, we identify companies that meet four out of our five price and fundamental-based criteria, indicating a high degree of stress (see Figure 31). We calibrate the criteria to reflect the characteristics of companies that have previously defaulted. However, given our more sanguine outlook for 2017 compared with when we published our default forecast for 2016 (see *Global EM Corporate Credit: Rising defaults will continue in 2016*, 10 November 2015), we have relaxed the cash to short-term debt criteria (compared with our previous calibration) to better reflect improving financing conditions.

We cross check our initial list resulting from our top-down view with a bottom-up review of credits under coverage by our fundamental analysts, allowing us to improve our default forecast accuracy.

FIGURE 31
Criteria for establishing risk of default

Criteria set	Cash/ST debt below	Price below	Yield to worst higher than	Type of company	Rating below
Optimistic	75%	75	7	Private only	C
Central	90%	80	6.5	Private only	CCC
Pessimistic	100%	85	6	Private + quasi	B

Source: Barclays Research

LatAm to record fewer defaults in 2016, but still higher than EEMEA

In our central scenario, we forecast the issuer-weighted default rate to decrease to 2.5% in 2017 from 3.8% this year (see Figure 32), and the par-weighted default rate should be close to 2% in 2017 (2.8% during the last 12 months, see Figure 33). Defaults will remain higher in LatAm than the other regions, but levels will be lower than 2016.

The recent political and monetary policy uncertainties prompted by the US election outcome justify, in our view, considering alternative scenarios: under our optimistic scenario, the par-weighted default rate will be close to 0-1%, compared with 12-13% in our pessimistic scenario (including larger companies defaulting, such as PDVSA notably). We see the optimistic scenario as unlikely given uncertainties related to US trade policies and their potential impact on LatAm and Asia financing conditions.

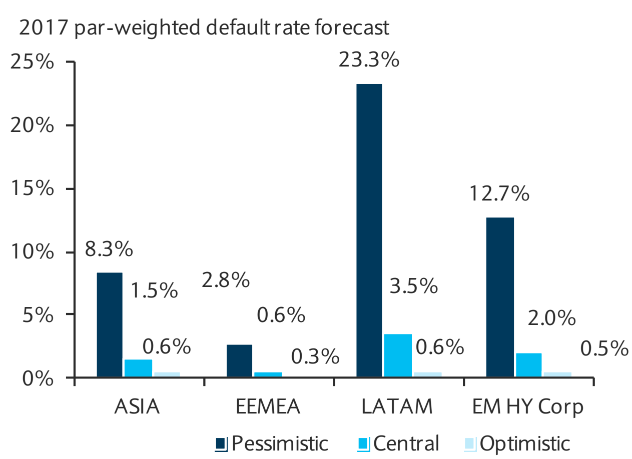
An alternative scenario: a fat tail-risk

In this note, we have presented our view under a central scenario where growth is picking-up, political risks in Europe remain contained and US rates will only gradually increase, keeping financing conditions for EM companies supportive.

However, the consequences of the "Politics of Rage" (see *Thinking Macro: The Politics of Rage*, 23 October 2016) have created a wider dispersion of potential outcomes, creating the necessity to consider alternative scenarios, notably those on the downside.

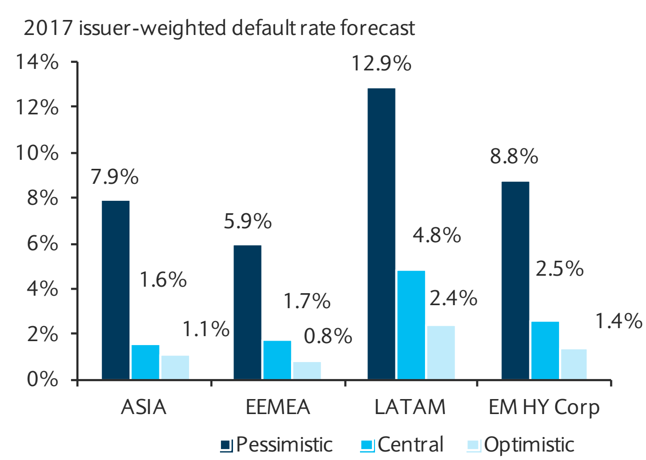
Our downside scenario is constructed around increasing political uncertainty and instability on both sides of the Atlantic. In the US, Trump's administration could put in place prohibitive tariffs on imports from Mexico and China, or enter a "trade war" by declaring China a currency

FIGURE 32
2017 par-weighted default rate forecast by region



Source: Barclays Research

FIGURE 33
2017 issuer-weighted default rate forecast by region



Source: Barclays Research

manipulator. Growth and sentiment toward EM countries could suffer, leading to portfolio outflows and even weaker FX. In Europe, the election of Marine Le Pen as the next French President could jeopardize the stability of the eurozone, and could lead to broad-based risk aversion similar to November 2011, in which EM credit would likely be caught.

In that scenario, we think that financing conditions could tighten for EM companies, and lower commodity prices (on the back of weaker demand from China and potentially higher supply from the US) would bring defaults higher. Driven by negative headlines in the press toward the asset class, ETFs could face significant outflows and cross-over investors could sell their holdings in EM corporate credits. The price action would be exacerbated by the poor liquidity during sell-off periods, and spreads could over-shoot to extreme valuations, before the EM dedicated community steps-in and brings back spreads to around 100bp wide to their current levels.

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Analyst Certification

We, Bradley Rogoff, CFA, Shobhit Gupta, Jigar Patel, Ryan Preclaw, CFA, Bruno Velloso, Eric Gross, Arvind Kumar, Mikhail Foux, Mayur Patel, CFA, Alin Florea, Brian Ford, CFA, Christophe Boulanger, Zoso Davies, Karine Elias, Andreas Hetland, Soren Willemann, James K Martin, Tobias Zechbauer, Dominik Winnicki, CFA, Avanti Save, CFA, Xiaoyi Wang, Walid Bellaha, Badr El Moutawakil and Aziz Sunderji, hereby certify (1) that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

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Materially Mentioned Issuers/Bonds

ADANI PORTS & SPECIAL ECONOMIC ZONE LTD, Underweight, CD/D/J/K/L/M/N

Other Material Conflicts: Barclays Bank PLC and/or an affiliate should be assumed to be an actual beneficial owner of 1% or more of all the securities (including debt securities) of this issuer as of the end of the month prior to the research report's issuance.

For historical price information on debt instruments issued by Adani Ports & Special Economic Zone Ltd and covered by Barclays Research, please refer to https://live.barcap.com/go/NYF/t/b/9202970085168

Representative Bond: ADSEZ 3 1/2 07/29/20 (USD 99.38, 29-Nov-2016)

AIB MORTGAGE BANK, CD/J/K/M/N

AIB 0 5/8 07/27/20 (EUR 101.85, 28-Nov-2016)

ALPEK SAB DE CV, Overweight, CD/D/J/K/L/M

Representative Bond: ALPEKA 4 1/2 11/20/22 (USD 97.90, 29-Nov-2016)

AMERICA MOVIL SAB DE CV, A/CD/CE/D/E/J/K/L/M

ANADOLU EFES BIRACILIK VE MALT SANAYII AS, Underweight, CD/J

Representative Bond: AEFES 3 3/8 11/01/22 (USD 89.23, 29-Nov-2016)

ANGLO AMERICAN CAPITAL PLC, CD/D/J/K/L/M/N

Other Material Conflicts: Barclays Bank and/or its affiliate is providing investment banking services to China Molybdenum Co., Ltd. (HKG:3993) in relation to its potential acquisition of Anglo American plc’s (LON:AAL) wholly-owned niobium and phosphate assets in Brazil (principally the issued share capital of Anglo American Fosfatos Brasil Limitada and Anglo American Nióbio Brasil Limitada) , as well as their related subsidiaries and associated marketing functions. The ratings, price targets and estimates (as applicable) on Anglo American plc as issued by the Firm’s Research Department do not incorporate any such potential transaction.

AALLN 3 1/4 04/03/23, Market Weight (EUR 102.79, 28-Nov-2016)

AALLN 3.5 03/28/2022, Market Weight (EUR 105.10, 28-Nov-2016)

AALLN 6 7/8 05/01/18, Overweight (GBP 106.43, 28-Nov-2016)

AVAYA INC, CD/J/K/M

AVYA 9 04/01/19, Market Weight (USD 87.75, 30-Nov-2016)

BANCO BILBAO VIZCAYA ARGENTARIA SA, Underweight, A/CD/CE/D/E/FB/I/J/K/L/M/N
Other Material Conflicts: Barclays Bank PLC and/or an affiliate is acting for Banco Bilbao Vizcaya Argentaria in relation to its sale of Garanti Bank Moscow.
Representative Bond: BBVASM 1 01/20/21 (EUR 101.94, 29-Nov-2016)

BANCO BRADESCO SA/CAYMAN ISLANDS, Underweight, CD/J/K/M/N
Representative Bond: BRADES 5 3/4 03/01/22 (USD 102.17, 29-Nov-2016)

BANCO DAVIVIENDA SA, Underweight, CD/J/K/M
Representative Bond: DAVIVI 5 7/8 07/09/22 (USD 102.71, 29-Nov-2016)

BANCO DE BOGOTA SA, Underweight, CD/J/K/M
Representative Bond: BANBOG 6 1/4 05/12/26 (USD 99.76, 29-Nov-2016)

BANCO DE CREDITO E INVERSIONES, Overweight, CD/J/K/M/N
Representative Bond: BCICI 3 09/13/17 (USD 100.73, 29-Nov-2016)

BANCO DO BRASIL SA, Underweight, CD/D/E/J/K/L/M/N
Representative Bond: BANBRA 3 3/4 07/25/18 (EUR 102.48, 29-Nov-2016)

BANCOLOMBIA SA, Underweight, CD/CE/J/K/M/N
Representative Bond: BCOLO 5 1/8 09/11/22 (USD 99.92, 29-Nov-2016)

BANK OF AMERICA CORP, Overweight, A/CD/CE/D/GE/J/K/L/M/N
Representative Bond: BAC 2 5/8 04/19/21 (USD 99.55, 29-Nov-2016)
Representative Bond: BAC 3 1/2 04/19/26 (USD 98.96, 29-Nov-2016)
Representative Bond: BAC 4.45 03/03/26 (USD 102.58, 29-Nov-2016)

BANQUE PSA FINANCE SA, CD/D/J/K/L/M/N
PEUGOT 5 3/4 04/04/21, Overweight (USD 109.31, 28-Nov-2016)

BAOSTEEL FINANCING 2015 PTY LTD, A/CD/D/J/L
SBSG 3 7/8 01/28/20 (USD 101.44, 30-Nov-2016)

BAYER AG, CD/D/E/FB/J/K/L/M/N
BAYNGR 5 5/8 05/23/18 (GBP 107.09, 28-Nov-2016)

BBVA BANCOMER SA/TEXAS, Overweight, CD/D/E/J/K/L/M/N
Representative Bond: BBVASM 4 3/8 04/10/24 (USD 97.85, 29-Nov-2016)

BEIJING ENTERPRISES HOLDINGS LTD, Market Weight, CD/J
Representative Bond: BEIENT 4 1/2 04/25/22 (USD 105.46, 30-Nov-2016)

BLUESTAR FINANCE HOLDINGS LTD, CD/J
CNBG 3 1/2 09/30/21 (USD 99.19, 30-Nov-2016)

BRASKEM SA, Overweight, CD/CE/J
Representative Bond: BRASKM 8 01/26/17 (USD 100.25, 29-Nov-2016)

BRAZILIAN GOVERNMENT INTERNATIONAL BOND, CD/D/E/J/K/L/M/N
BRAZIL 6 04/07/26 (USD 104.50, 29-Nov-2016)

BRF SA, Overweight, CD/CE/J/K/M/N
Representative Bond: BRFSBZ 4 3/4 05/22/24 (USD 97.88, 29-Nov-2016)

CALIFORNIA EDUCATIONAL FACILITIES AUTHORITY, CD/J/K/M

CHESAPEAKE ENERGY CORP, A/CD/CE/D/J/K/L/M
CHK 5 3/4 03/15/23, Underweight (USD 86.25, 30-Nov-2016)
CHK 8 12/15/22, Market Weight (USD 103.50, 30-Nov-2016)

CHINA GENERAL NUCLEAR POWER CORP, Overweight, CD/D/J/L
Representative Bond: CHGDNU 4 05/19/25 (USD 101.01, 29-Nov-2016)

CHINA OILFIELD SERVICES LTD, Underweight, CD/D/J/L
Representative Bond: COSL 4 1/2 07/30/25 (USD 101.63, 29-Nov-2016)

CITIC LTD, Overweight, CD/D/J/K/L/M/N
Representative Bond: CITLTD 3.7 06/14/26 (USD 98.15, 29-Nov-2016)

CITIGROUP INC, Market Weight, A/CD/CE/D/GE/I/J/K/L/M/N
Representative Bond: C 2.35 08/02/21 (USD 98.20, 29-Nov-2016)
Representative Bond: C 3.2 10/21/26 (USD 95.64, 29-Nov-2016)
Representative Bond: C 4 1/8 07/25/28 (USD 98.66, 29-Nov-2016)

CITY OF AUSTIN TX ELECTRIC UTILITY REVENUE, CD/J/K/M
AUSTIN ELEC UTIL (USD 110.69, 29-Nov-2016 20:54 GMT, Bloomberg)

CITY PUBLIC SERVICE BOARD OF SAN ANTONIO TX, CD/J/K/M
SAN ANTONIO ELEC (USD 114.83, 29-Nov-2016 20:54 GMT, Bloomberg)

CLAIRE'S STORES INC, CD/D/E/J/K/L/M/N
CLE 9 03/15/19, Market Weight (USD 48.75, 30-Nov-2016)

COCA-COLA ICECEK AS, Underweight, CD/J
Representative Bond: CCOLAT 4 3/4 10/01/18 (USD 102.23, 29-Nov-2016)

COGNITA FINANCING PLC, A/CD/E/J/L
COGNTA 7 3/4 08/15/21, Overweight (GBP 104.75, 28-Nov-2016)

COLOMBIA GOVERNMENT INTERNATIONAL BOND, CD/D/J/K/L/M
COLOM 10 3/8 01/28/33 (USD 144.98, 29-Nov-2016)

COLOMBIA TELECOMUNICACIONES SA ESP, CD/D/E/J/K/L/M/N
Representative Bond: TELEFO 5 3/8 09/27/22 (USD 96.09, 29-Nov-2016)

COMCEL TRUST VIA COMUNICACIONES CELULARES SA, Market Weight, CD/J/K/M/N
Representative Bond: MIICF 6 7/8 02/06/24 (USD 99.13, 29-Nov-2016)

CORP FINANCIERA DE DESARROLLO SA, Overweight, CD/J/K/M
Representative Bond: COFIDE 4 3/4 07/15/25 (USD 103.75, 29-Nov-2016)

CORP NACIONAL DEL COBRE DE CHILE, Underweight, CD/D/J/K/L/M/N
Representative Bond: CDEL 4 1/4 07/17/42 (USD 88.21, 29-Nov-2016)

CSN RESOURCES SA, Underweight, CD/J/K/M
Representative Bond: CSNABZ 6 1/2 07/21/20 (USD 76.13, 29-Nov-2016)

CYTEC INDUSTRIES INC, CD/J/K/M/N
SOLBBB 3 1/2 04/01/23 (USD 95.71, 28-Nov-2016)

DAR AL-ARKAN SUKUK CO LTD, Underweight, CD/J
Representative Bond: DARALA 6 1/2 05/28/19 (USD 97.25, 29-Nov-2016)

DIAMOND 1 FINANCE CORP / DIAMOND 2 FINANCE CORP, CD/J
DELL 8.1 07/15/36, Overweight (USD 113.96, 30-Nov-2016)

DIGICEL GROUP LTD, Overweight, CD/J/K/N
Representative Bond: DLLTD 7 1/8 04/01/22 (USD 71.25, 29-Nov-2016)

DTEK FINANCE PLC, Underweight, CD/J/K/M
Representative Bond: DTEKUA 7 7/8 04/04/18 (USD 79.25, 29-Nov-2016)

DUBAI HOLDING COMMERCIAL OPERATIONS MTN LTD, Overweight, CD/J
Representative Bond: DUBAIH 6 02/01/17 (GBP 100.26, 29-Nov-2016)

ELDORADO BRASIL CELULOSE S/A, CD/J
Representative Bond: ECELUP 7.41 12/01/27 (usd 82.24, 30-Nov-2016 13:35 GMT, Barclays)

EMAAR SUKUK LTD, Underweight, CD/J
Representative Bond: EMAAR 6.4 07/18/19 (USD 108.96, 29-Nov-2016)

EMIRATES AIRLINE, Overweight, CD/D/J/K/L/M/N
Representative Bond: EMIRAT 4 1/2 02/06/25 (USD 102.10, 29-Nov-2016)

EVRAZ GROUP SA, Overweight, A/CD/D/J/L
Other Material Conflicts: Barclays Bank Plc and/or an affiliate is acting as dealer manager on a debt tender offer for Evraz Group SA's 7.40% 17s XS0652913558; 9.50% 18s XS0359381331; 6.75% 18s XS0618905219 and Raspadksaya's 7.75% 17s XS0772835285.
Representative Bond: EVRAZ 6 3/4 01/31/22 (USD 103.00, 29-Nov-2016)

EXPORT CREDIT BANK OF TURKEY, Underweight, CD/D/J/K/L/M/N
Representative Bond: EXCRTU 5 3/8 02/08/21 (USD 98.25, 29-Nov-2016)

FIAT CHRYSLER AUTOMOBILES NV, CD/CE/J/K/M/N
FCAIM 3 3/4 03/29/24, Market Weight (EUR 100.55, 28-Nov-2016)
FCAIM 4 1/2 04/15/20, Underweight (USD 100.75, 28-Nov-2016)
FCAIM 5 1/4 04/15/23, Market Weight (USD 99.00, 28-Nov-2016)

FIAT CHRYSLER FINANCE EUROPE, CD/D/J/K/L/M/N
FCAIM 4 11/22/17, Underweight (CHF 103.33, 28-Nov-2016)
FCAIM 4 3/4 03/22/21, Underweight (EUR 108.33, 28-Nov-2016)
FCAIM 4 3/4 07/15/22, Market Weight (EUR 106.98, 28-Nov-2016)
FCAIM 6 3/4 10/14/19, Underweight (EUR 113.20, 28-Nov-2016)
FCAIM 6 5/8 03/15/18, Underweight (EUR 106.53, 28-Nov-2016)
FCAIM 7 03/23/17, Underweight (EUR 101.91, 28-Nov-2016)
FCAIM 7 3/8 07/09/18, Underweight (EUR 109.38, 28-Nov-2016)

FIAT CHRYSLER FINANCE NORTH AMERICA INC, CD/D/J/K/L/M/N
FCAIM 5 5/8 06/12/17, Underweight (EUR 102.34, 28-Nov-2016)

FIBRIA OVERSEAS FINANCE LTD, CD/J
Representative Bond: FIBRBZ 5 1/4 05/12/24 (USD 98.90, 29-Nov-2016)

FINANSBANK AS/TURKEY, Overweight, CD/D/E/J/K/L/M/N
Representative Bond: FINBN 6 1/4 04/30/19 (USD 103.05, 29-Nov-2016)

FONDO MIVIVIENDA SA, Overweight, CD/J/K/M
Representative Bond: MIVIVI 3 1/2 01/31/23 (USD 98.50, 29-Nov-2016)

GAJAH TUNGGAL TBK PT, CD/J
GJTLIJ 7 3/4 02/06/18, Underweight (USD 91.88, 30-Nov-2016)

GAZPROM PJSC, Overweight, CD/D/J/K/L/M/N
Representative Bond: GAZPRU 4.95 07/19/22 (USD 101.25, 29-Nov-2016)

GKN HOLDINGS PLC, CD/D/J/K/L/M/N
GKNLN 5 3/8 09/19/22 (GBP 114.28, 28-Nov-2016)

GOLDEN LEGACY PTE LTD, CD/J
SRIRJK 8 1/4 06/07/21, Overweight (USD 101.50, 30-Nov-2016)

GOLDMAN SACHS GROUP INC/THE, Overweight, CD/CE/J/K/M/N
Representative Bond: GS 2.35 11/15/21 (USD 97.32, 29-Nov-2016)
Representative Bond: GS 3 3/4 02/25/26 (USD 100.84, 29-Nov-2016)
Representative Bond: GS 4 1/4 10/21/25 (USD 101.61, 29-Nov-2016)

GTH FINANCE BV, Overweight, A/CD/D/E/J/K/L/M/N
Representative Bond: VIP 7 1/4 04/26/23 (USD 105.63, 29-Nov-2016)

HEMA BONDCO I BV, CD/J
HEMABV 6 1/4 06/15/19, Underweight (EUR 82.79, 28-Nov-2016)

HEMA BONDCO II BV, CD/J
HEMABV 8 1/2 12/15/19, Underweight (EUR 57.82, 28-Nov-2016)

HEXION INC / HEXION NOVA SCOTIA FINANCE ULC, CD/J
HXN 9 11/15/20, Market Weight (USD 73.63, 30-Nov-2016)

HEXION INC, CD/J/K/M
HXN 6 5/8 04/15/20, Overweight (USD 86.25, 30-Nov-2016)

HOLDIKKS SAS, CD/J
IKKSFR 6 3/4 07/15/21, Underweight (EUR 73.28, 28-Nov-2016)

HONGKONG LAND HOLDINGS LIMITED, Overweight, CD/J
Representative Bond: HKLSP 4 1/2 06/01/22 (USD 107.95, 29-Nov-2016)

IHEARTCOMMUNICATIONS INC, CD/J/K/M/N
IHRT 7 1/4 10/15/27, Market Weight (USD 52.50, 30-Nov-2016)

INDIANA UNIVERSITY, CD/J

INDO ENERGY FINANCE BV, CD/J
INDYIJ 7 05/07/18, Underweight (USD 95.00, 30-Nov-2016)

INDO ENERGY FINANCE II BV, CD/J
INDYIJ 6 3/8 01/24/23, Market Weight (USD 75.50, 30-Nov-2016)

INDONESIA GOVERNMENT INTERNATIONAL BOND, A/CD/D/J/K/L/M/N
INDON 4 3/4 01/08/26 (USD 105.13, 30-Nov-2016)

INTELSAT JACKSON HOLDINGS SA, CD/D/J/K/L/M/N
INTEL 7 1/4 04/01/19, Market Weight (USD 78.25, 30-Nov-2016)

INTELSAT LUXEMBOURG SA, CD/D/J/K/L/M/N
INTEL 7 3/4 06/01/21, Underweight (USD 34.75, 30-Nov-2016)

INVERSIONES CMPC SA, CD/J
Representative Bond: CMPCCI 4.5 04/25/2022 (USD 101.48, 29-Nov-2016)

IPIC GMTN LTD, Underweight, CD/D/E/J/K/L/M/N
Representative Bond: INTPET 5 1/2 03/01/22 (USD 111.47, 29-Nov-2016)

ITAU CORPBANCA, Overweight, CD/CE/J/K/M
Representative Bond: CORBAN 3 1/8 01/15/18 (USD 100.51, 29-Nov-2016)

JAFZ SUKUK LTD, Overweight, CD/D/J/K/L/M/N
Representative Bond: JAFZSK 7 06/19/19 (USD 109.89, 29-Nov-2016)

JAGUAR LAND ROVER AUTOMOTIVE PLC, CD/D/E/J/K/L/N
TTMTIN 3 1/2 03/15/20, Market Weight (USD 100.52, 28-Nov-2016)
TTMTIN 3 7/8 03/01/23, Overweight (GBP 100.43, 28-Nov-2016)
TTMTIN 4 1/4 11/15/19, Underweight (USD 103.13, 28-Nov-2016)
TTMTIN 4 1/8 12/15/18, Market Weight (USD 102.38, 28-Nov-2016)
TTMTIN 5 02/15/22, Overweight (GBP 107.09, 28-Nov-2016)
TTMTIN 5 5/8 02/01/23, Overweight (USD 103.38, 28-Nov-2016)

JPMORGAN CHASE & CO, Market Weight, A/CD/CE/D/GE/I/J/K/L/M/N/S
Representative Bond: JPM 2.295 08/15/21 (USD 98.42, 29-Nov-2016)
Representative Bond: JPM 2.95 10/01/26 (USD 95.36, 29-Nov-2016)
Representative Bond: JPM 4 1/4 10/01/27 (USD 103.50, 29-Nov-2016)
Representative Bond: JPM 4.85 02/01/44 (USD 111.65, 29-Nov-2016)
Representative Bond: JPM 4.95 06/01/45 (USD 105.65, 29-Nov-2016)

KAZAKHSTAN TEMIR ZHOLY NATIONAL CO JSC, Underweight, CD/J/K/M/N
Representative Bond: KTZKZ 6.95 07/10/42 (USD 93.63, 29-Nov-2016)

KLABIN FINANCE SA, CD/J
Representative Bond: KLAB 5 1/4 07/16/24 (USD 94.50, 29-Nov-2016)

KOC HOLDING AS, Overweight, CD/J/K/N
Representative Bond: KCHOL 5 1/4 03/15/23 (USD 96.95, 29-Nov-2016)

KOREA NATIONAL OIL CORP, Underweight, A/CD/D/J/K/L/M/N

Representative Bond: KOROIL 3 1/4 07/10/24 (USD 100.58, 29-Nov-2016)

LODHA DEVELOPERS INTERNATIONAL LTD, CD/J
LODHA 12 03/13/20 (USD 95.50, 30-Nov-2016)

LOWER COLORADO RIVER AUTHORITY, CD/J/K/M
LOWER CO RIV AUTH (USD 109.67, 29-Nov-2016 20:54 GMT, Bloomberg)

LUKOIL PJSC, Overweight, CD/J/K/M/N
Representative Bond: LUKOIL 4.563 04/24/23 (USD 99.38, 29-Nov-2016)

M-S-R ENERGY AUTHORITY, CD/J
MSR ENERGY (USD 130.50, 29-Nov-2016 20:55 GMT, Bloomberg)

MASSACHUSETTS ST DEV FIN AGY, J/K/M

MATALAN FINANCE PLC, CD/J/K/N
MTNLN 6 7/8 06/01/19, Market Weight (GBP 79.77, 28-Nov-2016)
MTNLN 8 7/8 06/01/20, Underweight (GBP 66.10, 28-Nov-2016)

MDC-GMTN BV, Underweight, CD/D/J/K/L/M
Representative Bond: MUBAUH 3 1/4 04/28/22 (USD 101.02, 29-Nov-2016)

METINVEST BV, Overweight, CD/J/K/M
Representative Bond: METINV 8 3/4 02/14/18 (USD 85.25, 29-Nov-2016)

METRO FINANCE BV, CD/J
MEOGR 4 07/11/22 (EUR 113.52, 28-Nov-2016)

MEXICO GOVERNMENT INTERNATIONAL BOND, A/CD/D/E/J/K/L/M/N
MEX 8.3 08/15/31 (USD 147.00, 29-Nov-2016)

MHP SA, Overweight, CD/J
Representative Bond: MHPSA 8 1/4 04/02/20 (USD 94.38, 29-Nov-2016)

MIE HOLDINGS CORP, CD/J
MIEHOL 6 7/8 02/06/18, Overweight (USD 81.25, 30-Nov-2016)
MIEHOL 7 1/2 04/25/19, Overweight (USD 68.88, 30-Nov-2016)

MILLICOM INTERNATIONAL CELLULAR SA, Market Weight, CD/J/K/M/N
Representative Bond: MIICF 4 3/4 05/22/20 (USD 99.63, 29-Nov-2016)
Representative Bond: MIICF 6 03/15/25 (USD 96.13, 29-Nov-2016)
Representative Bond: MIICF 6 5/8 10/15/21 (USD 103.88, 29-Nov-2016)

MINERVA SA/BRAZIL, Overweight, CD/J/K/M
Representative Bond: BEEFBZ 6 1/2 09/20/26 (USD 93.76, 29-Nov-2016)

MOBILE TELESYSTEMS PJSC, Underweight, CD/CE/D/E/J/L
Representative Bond: MOBTEL 5 05/30/23 (USD 101.75, 29-Nov-2016)

MORGAN STANLEY, Overweight, A/CD/CE/D/E/I/J/K/L/M/N
Representative Bond: MS 2 1/2 04/21/21 (USD 98.83, 29-Nov-2016)
Representative Bond: MS 3 1/8 07/27/26 (USD 95.98, 29-Nov-2016)
Representative Bond: MS 3.95 04/23/27 (USD 98.97, 29-Nov-2016)

NAKILAT INC, Overweight, CD/D/J/L
Representative Bond: QGTS 6.267 12/31/33 (USD 114.66, 29-Nov-2016)

NEMAK SAB DE CV, Underweight, CD/D/J/K/L/M
Representative Bond: TNEMAK 5 1/2 02/28/23 (USD 98.25, 29-Nov-2016)

NEW JERSEY EDUCATIONAL FACILITIES AUTHORITY, CD/J/K/M

NOBLE GROUP LTD, CD/D/FA/J/K/L/M/N
NOBLSP 3 5/8 03/20/18, Market Weight (USD 91.50, 30-Nov-2016)
NOBLSP 6 06/24/49, Market Weight (USD 54.38, 30-Nov-2016)

NOBLSP 6 3/4 01/29/20, Market Weight (USD 82.00, 30-Nov-2016)

NOVOLIPETSK STEEL PJSC, Overweight, CD/J
Representative Bond: NLMKRU 4 1/2 06/15/23 (USD 98.13, 29-Nov-2016)

OLEODUCTO CENTRAL SA, Overweight, CD/D/J/K/L/M
Representative Bond: OCENSA 4 05/07/21 (USD 98.05, 29-Nov-2016)

OOREDOO INTERNATIONAL FINANCE LTD., Underweight, CD/D/J/K/L/M
Representative Bond: QTELQD 4 3/4 02/16/21 (USD 107.71, 29-Nov-2016)

OOREDOO TAMWEEL LTD, Underweight, CD/D/J/K/L/M
Representative Bond: QTELQD 3.039 12/03/18 (USD 101.68, 29-Nov-2016)

OTTAWA HOLDINGS PTE LTD, CD/J
BHITIJ 5.875 05/16/2018, Underweight (USD 71.25, 30-Nov-2016)

PERMANENT UNIVERSITY FUND - TEXAS A&M UNIVERSITY SYSTEM, CD/J

PERTAMINA PERSERO PT, CD/J

PERUSAHAAN GAS NEGARA PERSERO TBK, CD/J

PETROBRAS GLOBAL FINANCE BV, Overweight, CD/D/E/J/K/L/M/N
Representative Bond: PETBRA 6 1/4 03/17/24 (USD 96.00, 29-Nov-2016)

PETROLEO BRASILEIRO SA, Overweight, CD/CE/D/E/J/K/L/M/N
Representative Bond: PETBRA 6 1/4 03/17/24 (USD 96.00, 29-Nov-2016)

PETROLIAM NASIONAL BHD, Underweight, CD/J/K/M/N
Representative Bond: PETMK 5 1/4 08/12/19 (USD 107.54, 29-Nov-2016)

PEUGEOT SA, CD/D/J/K/L/M/N
PEUGOT 2 3/8 04/14/23, Underweight (EUR 102.49, 28-Nov-2016)
PEUGOT 5 5/8 07/11/17, Underweight (EUR 103.07, 28-Nov-2016)
PEUGOT 6 1/2 01/18/19, Underweight (EUR 112.42, 28-Nov-2016)
PEUGOT 7 3/8 03/06/18, Underweight (EUR 108.59, 28-Nov-2016)

POLYUS GOLD INTERNATIONAL LTD, Underweight, CD/J
Representative Bond: PGILLN 5 5/8 04/29/20 (USD 103.75, 29-Nov-2016)

PROMSVYAZBANK PJSC, Underweight, CD/J/K/M
Representative Bond: PROMBK 8 1/2 04/25/17 (USD 101.50, 29-Nov-2016)

PSA TRESORERIE GIE, CD/D/J/K/L/M/N
PEUGOT 6 09/19/33, Overweight (EUR 116.57, 28-Nov-2016)

PTT GLOBAL CHEMICAL PCL, Underweight, CD/D/J/L
Representative Bond: PTTGC 4 1/4 09/19/22 (USD 104.65, 29-Nov-2016)

PUBLIC AUTHORITY FOR COLORADO ENERGY, CD/J
PUB AUTH FOR CO GAS (USD 129.21, 29-Nov-2016 20:55 GMT, Bloomberg)

RELIANCE COMMUNICATIONS LTD, CD/D/J/K/L/N
RCOMIN 6 1/2 11/06/20 (USD 100.88, 30-Nov-2016)

REPUBLIC OF SOUTH AFRICA GOVERNMENT INTERNATIONAL BOND, A/CD/D/E/J/K/L/M/N
SOAF 4.3 10/12/28 (USD 92.63, 29-Nov-2016)

ROSNEFT FINANCE SA, Underweight, CD/D/E/J/K/L/M/N
Representative Bond: TMENRU 7 1/4 02/02/20 (USD 109.00, 29-Nov-2016)

ROSNEFT OIL CO VIA ROSNEFT INTERNATIONAL FINANCE LTD, Underweight, CD/D/E/J/K/L/M/N
Representative Bond: ROSNRM 4.199 03/06/22 (USD 97.25, 29-Nov-2016)

RUSSIAN FOREIGN BOND - EUROBOND, CD/D/E/J/K/L/M/N

RUSSIA 12 3/4 06/24/28 (USD 168.63, 29-Nov-2016)

SALT VERDE FINANCIAL CORP, CD/J
SALT VERDE FNL CORP (USD 110.59, 29-Nov-2016 20:55 GMT, Bloomberg)

SAUDI ELECTRICITY GLOBAL SUKUK CO 2, Underweight, CD/J/K/M/N
Representative Bond: SECO 3.473 04/08/2023 (USD 100.79, 29-Nov-2016)

SAUDI ELECTRICITY GLOBAL SUKUK CO 3, Underweight, CD/J/K/M/N
Representative Bond: SECO 5 1/2 04/08/44 (USD 98.23, 29-Nov-2016)

SAUDI ELECTRICITY GLOBAL SUKUK CO, Underweight, CD/J
Representative Bond: SECO 2.665 04/03/17 (USD 100.13, 29-Nov-2016)

SBERBANK OF RUSSIA JSC, Overweight, CD/D/E/J/K/L/M/N
Representative Bond: SBERRU 5.717 06/16/21 (USD 105.38, 29-Nov-2016)

SCIENTIFIC GAMES INTERNATIONAL INC, CD/J/K/M
SGMS 6 1/4 09/01/20, Overweight (USD 81.50, 30-Nov-2016)
SGMS 7 01/01/22, Market Weight (USD 105.63, 30-Nov-2016)

SEVERSTAL OAO VIA STEEL CAPITAL SA, Overweight, CD/J
Representative Bond: CHMFRU 5.9 10/17/22 (USD 106.63, 29-Nov-2016)

SHANGHAI ELECTRIC POWER FINANCE LTD, CD/J
SHELEC 3 5/8 08/11/20 (USD 101.66, 30-Nov-2016)

SIGMA ALIMENTOS SA DE CV, Underweight, CD/D/J/K/L/M
Representative Bond: SIGMA 4 1/8 05/02/26 (USD 93.32, 29-Nov-2016)

SOVCOMFLOT OAO, Underweight, CD/J
Representative Bond: SCFRU 5 3/8 06/16/23 (USD 101.50, 29-Nov-2016)

SRI LANKA GOVERNMENT INTERNATIONAL BOND, CD/J/K/M/N
SRILAN 6.825 07/18/26 (USD 100.25, 30-Nov-2016)

STUDIO CITY FINANCE LTD, CD/J
STCITY 8 1/2 12/01/20, Overweight (USD 103.63, 30-Nov-2016)

SUZANO AUSTRIA GMBH, CD/J/K/N
Representative Bond: SUZANO 5 3/4 07/14/26 (USD 95.00, 29-Nov-2016)

SWIRE PACIFIC LTD, Underweight, CD/J/K/N
Representative Bond: SWIRE 5 1/2 08/19/19 (USD 108.82, 29-Nov-2016)
Representative Bond: SWIRE 8.84 (USD 25.16, 29-Nov-2016)

SWIRE PROPERTIES MTN FINANCING LTD, Market Weight, CD/J
Representative Bond: SWIPRO 2 3/4 03/07/20 (USD 100.29, 30-Nov-2016)

TAKKO LUXEMBOURG 2 SCA, CD/J
TAKKO 9 7/8 04/15/19, Underweight (EUR 63.56, 28-Nov-2016)

TENCENT HOLDINGS LTD, Market Weight, CD/D/J/K/L/M/N

TENGIZCHEVROIL FINANCE CO INTERNATIONAL LTD, Overweight, CD/J
Representative Bond: TENGIZ 4 08/15/26 (USD 92.93, 29-Nov-2016)

TEXHONG TEXTILE GROUP LTD, CD/J
TEXTEX 6 1/2 01/18/19 (USD 103.50, 30-Nov-2016)

THETA CAPITAL PTE LTD, CD/J
LPKRIJ 6 1/8 11/14/20, Market Weight (USD 102.88, 30-Nov-2016)
LPKRIJ 7 04/11/22, Market Weight (USD 102.13, 30-Nov-2016)

TINGYI CAYMAN ISLANDS HOLDING CORP, CD/J
TINGYI 3 7/8 06/20/17 (USD 100.75, 30-Nov-2016)

TMK OAO VIA TMK CAPITAL SA, Underweight, CD/J/K/N
Representative Bond: TRUBRU 6 3/4 04/03/20 (USD 103.13, 29-Nov-2016)

TUPRAS TURKIYE PETROL RAFINERILERI AS, Overweight, CD/J/K/N
Representative Bond: TUPRST 4 1/8 05/02/18 (USD 99.88, 29-Nov-2016)

TURK TELEKOMUNIKASYON AS, Overweight, CD/J
Other Material Conflicts: Barclays Bank PLC is providing investment banking services to the Republic of Turkey on the privatisation of Turk Telekomunikasyon AS.
Representative Bond: TURKTI 3 3/4 06/19/19 (USD 98.75, 29-Nov-2016)
Representative Bond: TURKTI 4 7/8 06/19/24 (USD 93.63, 29-Nov-2016)

TURKIYE IS BANKASI, Overweight, CD/D/J/K/L/M/N
Representative Bond: ISCTR 5 06/25/21 (USD 94.80, 29-Nov-2016)

TURKIYE VAKIFLAR BANKASI TAO, Overweight, A/CD/D/J/K/L/M/N
Representative Bond: VAKBN 5 10/31/18 (USD 99.77, 29-Nov-2016)

UNIVERSITY OF VIRGINIA, CD/J

VEDANTA RESOURCES PLC, CD/D/FA/J/K/L/M/N
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For historical price information on debt instruments issued by Vedanta Resources PLC and covered by Barclays Research, please refer to https://live.barcap.com/go/BC/barcaplive?url=/NYF/t/e/7193743291551&menuCode=MENU_AR_IR_AT_CURVE
VEDLN 6 01/31/19, Overweight (USD 99.50, 30-Nov-2016)
VEDLN 7 1/8 05/31/23, Overweight (USD 95.70, 30-Nov-2016)
VEDLN 8.25 06/07/2021, Overweight (USD 102.50, 30-Nov-2016)
VEDLN 9 1/2 07/18/18, Market Weight (USD 105.75, 30-Nov-2016)

VIRGIN MEDIA FINANCE PLC, CD/D/J/K/L/M/N
VMED 6 3/8 10/15/24, Overweight (GBP 102.70, 28-Nov-2016)
VMED 7 04/15/23, Overweight (GBP 105.75, 28-Nov-2016)

VIRGIN MEDIA RECEIVABLES FINANCING NOTES I DAC, A/CD/E/J/K/L/M/N
VMED 5 1/2 09/15/24, Market Weight (GBP 97.50, 28-Nov-2016)

VIRGIN MEDIA SECURED FINANCE PLC, A/CD/D/J/K/L/M/N
VMED 4 7/8 01/15/27, Market Weight (GBP 95.48, 28-Nov-2016)
VMED 5 1/2 01/15/25, Overweight (GBP 101.14, 28-Nov-2016)
VMED 5 1/8 01/15/25, Market Weight (GBP 99.94, 28-Nov-2016)

VNESHECONOMBANK, Overweight, CD/D/E/J/K/L/M/N
Representative Bond: VEBBNK 5.942 11/21/23 (USD 101.00, 29-Nov-2016)

VTB BANK PJSC, Underweight, CD/D/E/J/K/L/M/N
Representative Bond: VTB 6.551 10/13/20 (USD 107.38, 29-Nov-2016)

WEATHERFORD INTERNATIONAL LLC, CD/D/J/K/L/M/N
WFT 6 1/2 08/01/36, Underweight (USD 77.00, 30-Nov-2016)

WEST CHINA CEMENT LTD, CD/J
WESCHI 6 1/2 09/11/19, Market Weight (USD 103.38, 30-Nov-2016)

WHARF HOLDINGS LTD/THE, Underweight, CD/J
Representative Bond: WHARF 6 1/8 11/06/17 (USD 103.65, 29-Nov-2016)

YAPI VE KREDI BANKASI AS, Underweight, CD/D/J/K/L/M/N
Representative Bond: YKBNK 4 01/22/20 (USD 94.65, 29-Nov-2016)

YINGDE GASES INVESTMENT LTD, CD/J
YINGDZ 7 1/4 02/28/20, Underweight (USD 97.00, 30-Nov-2016)
YINGDZ 8.125 04/22/2018, Underweight (USD 101.00, 30-Nov-2016)

All pricing information is indicative only. Prices are sourced from Thomson Reuters as of the last available closing price at the time of production of the research report, unless another time and source is indicated.

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For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to exceed the six-month total return of the relevant index.

Market Weight (MW):

For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to be in line with the six-month excess return of the relevant index.

For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to be in line with the six-month total return of the relevant index.

Underweight (UW):

For sectors rated against the Bloomberg Barclays U.S. Credit Index, the Bloomberg Barclays Pan-European Credit Index, the Bloomberg Barclays EM Asia USD High Grade Credit Index or the Bloomberg Barclays EM USD Corporate and Quasi-Sovereign Index, the analyst expects the six-month excess return of the sector to be less than the six-month excess return of the relevant index.

For sectors rated against the Bloomberg Barclays U.S. High Yield 2% Issuer Capped Credit Index, the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials, the Bloomberg Barclays Pan-European High Yield Finance Index or the Bloomberg Barclays EM Asia USD High Yield Corporate Credit Index, the analyst expects the six-month total return of the sector to be less than the six-month total return of the relevant index.

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Sectors in U.S. High Grade Research are defined using the sector definitions of the Bloomberg Barclays U.S. Credit Index and are rated against the Bloomberg Barclays U.S. Credit Index.
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Sectors in Industrials and Utilities in European High Yield Research are defined using the sector definitions of the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials and are rated against the Bloomberg Barclays Pan-European High Yield 3% Issuer Capped Credit Index excluding Financials.
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Overweight (OW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to exceed the six-month expected excess return of the relevant sector.
Market Weight (MW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be in line with the six-month expected excess return of the relevant sector.
Underweight (UW): The analyst expects the six-month excess return of the issuer's index-eligible corporate debt securities to be less than the six-month expected excess return of the relevant sector.
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Overweight (OW): The analyst expects the six-month total return of the debt security subject to this rating to exceed the six-month expected total return of the relevant sector.
Market Weight (MW): The analyst expects the six-month total return of the debt security subject to this rating to be in line with the six-month expected total return of the relevant sector.
Underweight (UW): The analyst expects the six-month total return of the rated debt security subject to this rating to be less than the six-month expected total return of the relevant sector.
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Overweight (OW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to exceed the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively.
Market Weight (MW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to be in line with the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively..
Underweight (UW): The analyst expects the six-month total returns of the issuer's rand-denominated fixed rate notes or floating rate notes (as applicable) to be below the six-month expected total returns the South African Credit Fixed Market Index (CFIX95) or the South African Credit Floating Market Index (CFL020), respectively..
Rating Suspended (RS): The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity in a merger or strategic transaction involving the company.
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25% have been assigned an Underweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Sell rating; 72% of issuers with this rating category are investment banking clients of the Firm; 87% of the issuers with this rating have received financial services from the Firm.

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25% have been assigned an Underweight rating which, for purposes of mandatory regulatory disclosures, is classified as a Sell rating; 53% of bonds with this rating category are investment banking clients of the Firm; 71% of the issuers with this rating have received financial services from the Firm.

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Market Weight (MW):
The analyst expects the three-month excess return of the country's index eligible bonds to be in line with the three-month excess return of the Bloomberg Barclays EM USD Sovereign Index.
Underweight (UW):
The analyst expects the three-month excess return of the country's index eligible bonds to be less than the three-month excess return of the Bloomberg Barclays EM USD Sovereign Index.
Rating Suspended (RS):
The rating has been suspended temporarily due to market events that make coverage impracticable or to comply with applicable regulations and/or firm policies in certain circumstances including where the Investment Bank of Barclays Bank PLC is acting in an advisory capacity.

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