



23 November 2018

This year in the rearview mirror

2018 almost made it to be another good year in HY, but its narrative had to be hastily rewritten in the last few weeks. The broad DM USD HY index was annualizing close to 4% total and 5.5% excess YTD returns as recently as early October. All that is now gone, with both total and excess returns now negative YTD, at -0.6% and -0.4% respectively. Our spreads which were almost breaking into 2-handles in January, April, and October are now comfortably in the 4-handles, near their two-year wides. CCCs that led the way most of the year with close to 650bps of excess returns over BBs accumulated by late summer, have given up more than 500bps in the last few weeks. This market reversal now exceeds the taper tantrum selloff in terms of overall index widening.

Our thoughts going forward

We do not believe this volatility episode will go down in history as the turning point in this credit cycle. At least, we do not see enough evidence to come to that conclusion here and now, although unquestionably the market has made a big move in that direction just in the last few weeks.

Key elements of our rationale here include debt and capex growth dynamics that have been slowing down for several years, and do not resemble their normal trends in approaching cyclical turns. In addition, earnings growth trends should remain relatively strong, in our opinion, even once we net out the inevitable drop of tax-reform contributions early next year. Our default rate model similarly produces a modest increase in expected credit losses next year, not a sharp spike.

All these elements add up to an argument that this volatility episode is more likely to register only as such, a volatility episode, and not the early stage of something bigger. In this context, we think spreads do not have to average materially higher than their current levels over the course of coming months, although this episode may not be over just yet. As we discussed [last week](#), we see 500bps as a possible next stop in this market move. Longer-term, be prepared for wider spread ranges – so more risk to be concerned about but also more opportunities to pursue.

Importantly though our cyclical views do not substantiate a further move wider, given the evidence known to us so far. Some of the key risks we are watching here include sharp deterioration of investor sentiment in IG where GE – a name which was rated single-A just a few weeks ago – is now trading in line with better quality *single-Bs*. We are also watching the ongoing repricing in technology, as this sector, along with healthcare, was the cornerstone of this credit cycle. Further material weakness from current levels could have far-reaching implications for this credit cycle, in our opinion. Again, for now these are risks that do not yet add up to the base case.

If the market is trading in low-400s here and we think it is potentially headed towards 500 but is not very likely to break through that level, we think investors should be adding risk on their way there, not reducing it. We are still cautious on CCCs, although we clearly like 'em better here, after a 500bps reversal. We also like energy better at \$54 WTI than we liked it at \$75. Overall, with rates risk now receding – as we long expected it to – we think credit could produce some decent returns from wider levels. This year's +/-40bps spread range around our target is likely to grow to +/-50..75bps, at least.

BofA Merrill Lynch does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 12 to 14.

11939959

Timestamp: 23 November 2018 05:00AM EST

High Yield Strategy
United States

Table of Contents

Key macro assumptions	2
Risks to macro outlook	2
Fundamentals and defaults	2
Valuations and targets	2
Relative value	2
Supply and demand	2

Oleg Melentyev, CFA

Credit Strategist
MLPF&S
+1 646 855 6379
oleg.melentyev@baml.com

Neha Khoda

Credit Strategist
MLPF&S
+1 646 855 9656
neha.khoda@baml.com

Eric Yu

Credit Strategist
MLPF&S
+1 646 855 8663
eric.x.yu@baml.com

Key macro assumptions

Our base-case scenario assumes the following five key developments taking place at some point over the coming months/quarters:

US corporate earnings growth slows down. Reported yoy EPS growth of S&P1,500 index (captures the full spectrum of issuers, from large to mid to small caps) has peaked at 25% in Q2 and is currently tracking 23% for Q3. While the extent of the slowdown in growth is not significant, it was the first quarter out of eight when the yoy EPS growth has failed to exceed the growth rate of a preceding quarter. We think this datapoint helps explain a relatively strong market reaction in October, which was less about the strength of earnings at hand and more about resetting expectations for the future.

Earnings are poised to experience further deceleration in growth as we go into the next year, as favorable effects of tax reform are bound to turn from a tailwind into a headwind. Earnings were growing at 10-12% pace prior to tax reform, and we see few reasons to suggest this is not where growth is headed eventually, perhaps by Q3/Q4 2019. We still view this as a healthy growth environment, and would not use this as an argument for increased risk of a turn in credit cycle.

Global central bank balance sheet starts to deflate. The Federal Reserve was engaged in rolling off its balance sheet at about a \$25bn/mo average clip in 2018. At the same time, its actions were offset with a continued expansion of QE programs by the ECB and BOJ, at \$30bn/mo and \$25bn/mo in US dollar equivalents respectively. This dynamic will change next year, when the Fed hopes to at least maintain but ideally increase its pace of roll-offs to \$50bn/mo, while the ECB stops its purchases in January. Even if the BOJ continues at its current pace for a while, this means the aggregate balance sheet starts to deflate next year for the first time in this new monetary policy experiment that was underway since the GFC.

Volatility set all-time record lows in 2017 and has clearly shifted into a higher gear this year, with at least two meaningful global shocks rocking the markets in February and October, aside from more localized events hitting EM, IG, and EU sovereign markets at different points in time. And while the direct link between central bank liquidity and volatility is hard to prove with mathematical precision, the connection appears evident. So we assume this link produces more, perhaps even more pronounced, volatility shocks next year. We do not yet see reasons why such shocks would necessarily lead to a more material reassessment of prospects for the cycle at this stage, although we remain open-minded when it comes to this particular point.

For now, we are setting ourselves up to be able/willing to increase portfolio credit risk as/if such volatility shocks materialize.

Inflation peaks. Core PCE has oscillated around 1.5% for over five years, before it made a breakthrough to 2.0% in 2018. This year's environment provided a good backdrop for a temporary upswing in inflation, with factors ranging from tight labor markets to strong GDP growth to higher oil prices all contributing to the outcome.

Going forward, we expect the environment to normalize somewhat, with fading tax reform effects and accumulating costs of the trade war leading the way to slower economic growth. Oil has appreciated by 50% from Sept 2017 to Sept 2018, before retracing over 20% in the last few weeks. As such, it is likely to turn from a tailwind into a headwind for inflation. Even as our focus here is on core PCE, we note a non-trivial +0.25x beta between percentage changes in WTI and core PCE over the past thirty years. In the meantime, our economists [forecast](#) core PCE rising to 2.3% by Q3 2019 before softening to 2.2% by the end of 2019.

Yield curve flattens. The 10/2yr US Treasury yield curve has flattened by 120bps over the past three years, just as the Fed has hiked short-term rates by 200bps, implying a 6bps of flattening for every 10bps of hiking. We do not expect this reaction function to

change going forward, and given the current yield curve level of around 30bps, would not be surprised to see it flat and perhaps even modestly inverted after the next 2 maybe 3 rate hikes. Such an event should create a natural barrier for the Federal Reserve to continue hiking interest rates, as the FOMC has in the past generally refrained from raising Fed Funds more than once or twice into a flat yield curve.

Once the yield curve is flat, we think consensus would be all but certain to start vocally entertaining odds of the next recession, and this is going to make it more difficult for the Fed to continue tightening policy in a constructive way. We do not view the link between yield curve and timing of recessions as direct/immediate/automatic; however we do recognize a lagged and variable connection between the two. During the pre-GFC cyclical turn, it took around 18 months between the initial curve flattening in Dec 2005 and sharp tightening in credit conditions in Jul-Aug 2007. In the late 1990s the curve initially flattened in mid-1998 and the credit contraction did not arrive until mid-2000.

Our rates strategists [forecast](#) the yield curve to go flat by the middle of 2019 (both 2s and 10s at 3.30%) and to invert by 10bps by the end of next year (2s at 3.35% and 10s at 3.25%).

Trade war fades. With Democrats retaking the majority of US Congress, we think they may now have enough clout to be able to distract the Trump administration with various inquiries and investigations. As such, the administration may eventually lose its focus on trade, although we would not be surprised to see one more push to apply higher pressure on China during the lame duck session. We think the fact that S&P500 is about 100pts away from wiping out all post-tax reform upside coupled with the fact that other major trading partners, including Canada, Mexico, the EU and S Korea, were able to achieve new arrangements in exchange for token concessions should both translate into eventual resolution of trade issues with China.

Across all assumptions we listed above this is the one we feel least confident about. If we are wrong about it, we think further escalation of tensions with China is the best shortcut from where we are to the next recession.

Risks to macro outlook

Based on these macro assumptions, we think the environment will remain supportive of the continued gradual evolution of this credit cycle, not its imminent turn.

This is our base case. It could be challenged by the following key risk factors:

Populism takes hold. With time, populist electoral gains look less like an aberration: the latest print came after US midterms failed to deliver a resounding rebuke to Trumpism, instead producing a divided government. In Germany, a leftist party (Greens) is now directly challenging CDU in polls, an establishment party that dominated the government since WWII. A right-wing populist party AfD has also seen some successes in recent elections there, perhaps an even greater concern. Between the UK, Italy, Austria, Sweden, and Brazil – the list of election “surprises” gets longer.

Trade contracts. Open trade requires open minds and cooperation on the part of sovereign governments. Populist and nationalist politics are pushing countries in the opposite direction. As such, there is a risk of trade wars escalating in the immediate near-term even if reason and evidence suggest this would be a mistake.

Key sectors get hit. A contraction in international trade would hit sectors that rely more heavily on global supply chains and/or cross-border final consumers, such as autos, industrials, and technology. Through these lenses, the developing GE situation and meaningful declines in largest tech names, including Apple, Google, Amazon, Netflix – all down 20% or more from recent peaks – look less of a surprise.

The GE situation in particular looks problematic at current levels as some of its benchmark bonds are now trading in line with better quality single-Bs (GE 10yr bonds are in the 340-380bps range). In the past, large IG names who crossed BB levels were eventually downgraded into HY more often than not.

Earlier examples of large IG names (\$5bn+) trading through BB levels prior to becoming fallen angels include: JC Penney (2000), Enron (2001), Worldcom (2002), Tyco (2002), El Paso (2002), Comcast (2002), Sprint (2003), GM (2004), Ford (2005), Rescap (2007), CIT (2008), Navient (2009), Telecom Italia (2011), ArcelorMittal (2012), Teck Resources (2014), Freeport-McMoRan (2015), Continental Resources (2015), Anglo American (2015), and many others. In each of these cases, the eventual downgrade came anywhere between a month to a year following the initial point in time when a credit was still technically IG but traded through BBs. The median excess spread of the initial print wider over BBs was +60bps.

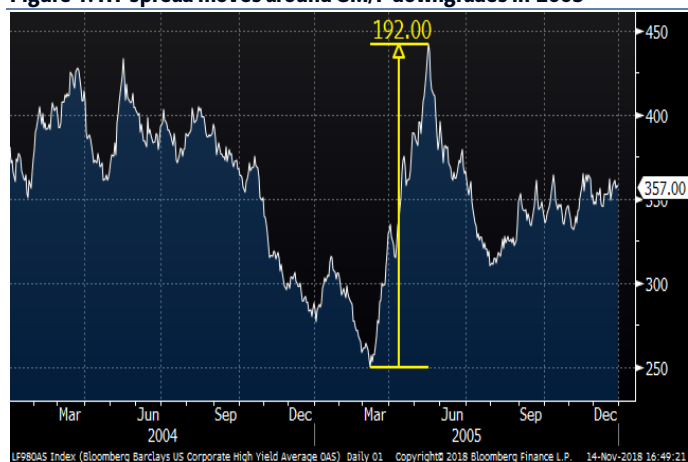
Examples to the contrary are limited, for the most part, to financial institutions that received various forms of government liquidity/capital support during and after the global financial crisis and European sovereign crisis. Non-financial IG names that have eluded that fate so far include Macy's (initially traded wide to BBs in 2017), Marathon Petroleum (2016), Williams Partners (2015), Barrick Gold (2013), and Daimler (2008).

This is not a forecast of what is going to happen to GE; we are only highlighting the historical track record of previous episodes when large IG names were trading wide to BBs. Given this track record, we think any steps taken by GE to remediate market concerns – asset sales and/or equity raises – need to happen soon and be sizeable to matter. Thus timing and decisiveness are critical here.

At \$48bn in index-eligible bonds, GE could become the largest fallen angel in DM USD HY market history (Ford currently holds this title with a \$40bn downgrade in 2005). The HY index widened almost 200bps on F/GM downgrades in 2005 (Figure 1), although the market was half its current size.

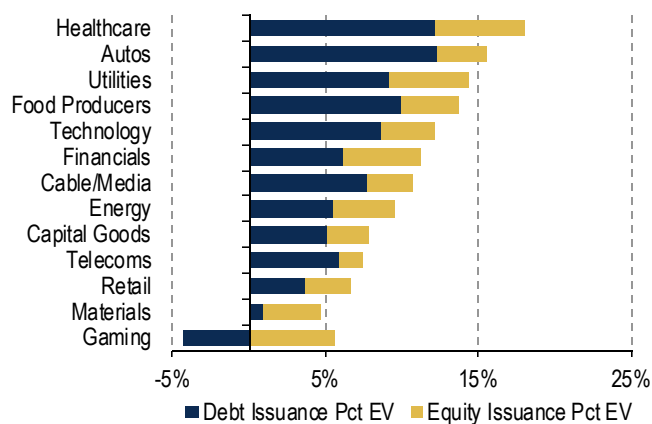
About \$40bn of its index-eligible debt is issued by GE Capital, so the financial link is present here as well, with potential for regulators getting involved at some point.

Figure 1: HY spread moves around GM/F downgrades in 2005



Source: BofA Merrill Lynch Global Research, Bloomberg

Figure 2: New debt/equity capital raised by sector, last 5 yrs



Source: BofA Merrill Lynch Global Research

Technology and healthcare

Two sectors were responsible for a significant share of capital raised, earnings generated, and employment created in this cycle: technology and healthcare. Figure 2 ranks sectors by the total amount of new debt/equity capital raised over the past five years, as a percent of their current enterprise values. Healthcare comes out at the top

(also keeps that spot in absolute dollar terms, at \$625bn). Technology is down the list primarily because of outsized EVs pushing the ratio lower; in dollar terms, tech is right behind healthcare, at \$500bn in new debt and equity capital raised. The recent reversal in auto valuations looks less surprising through the lenses of this ranking, although this sector has a relatively small footprint in the US economy to be consequential to our broader cyclical discussion here.

In contrast, a protracted weakness in either one of the two key sectors – technology or healthcare – could be sufficient to turn the broader credit cycle, in our opinion. From this perspective, a near-bear market performance in some key technology names in recent months requires close monitoring going forward for any signs of further deterioration. It will be a mistake to dismiss further weakness in tech solely on the grounds of a limited overlap with HY issuer universe. This story could potentially have far greater consequences, way beyond the FAANGs themselves.

We are also watching EU financials, obviously not as much for their past contributions to growth but rather as a source of contagion risk related to Italy/EU.

To reiterate, we are still constructive on evolution of this cycle, however we think risks described above – the rise of populism, barriers to trade, impact on key sectors – are both real in terms of probabilities and meaningful in terms of potential impact. We continue to monitor their development for any signs of further deterioration that could trigger a change to our broader cyclical outlook.

Oil and energy HY

Oil has dropped by 30% from its recent peak in early October to settle at around \$53-54/bbl in recent sessions. This move has initially put some pressure on energy HY names and eventually found its way to a broader market weakness narrative, as the commodity meltdown of 2015-2016 remains fresh in memory.

While it is natural to see some air come out of HY energy valuations given the extent and pace of the drop in underlying commodity, we do not think this move should be extrapolated towards the experience of 2-3 years ago. Back then, HY energy came under initial pressure at current levels of oil prices because most capital structures were built with \$100/bbl assumptions. Following a full sector restructuring that reached its peak at sub-\$30 oil prices and with defaults rates exceeding 25%, its composition has changed. Current survivors have re-built their cap structures while oil was in the \$45-55 range.

So \$54 oil today provides a very different backdrop to this sector, compared to where we were in late 2014. We think fundamental pressures could resurface at oil inside of \$45 and it would take even further declines to \$35-40 range to see meaningful credit losses picking up. This is not a scenario we put a high probability on. As such, we like Energy HY more at \$54 WTI than we liked it at \$75.

Fundamentals and defaults

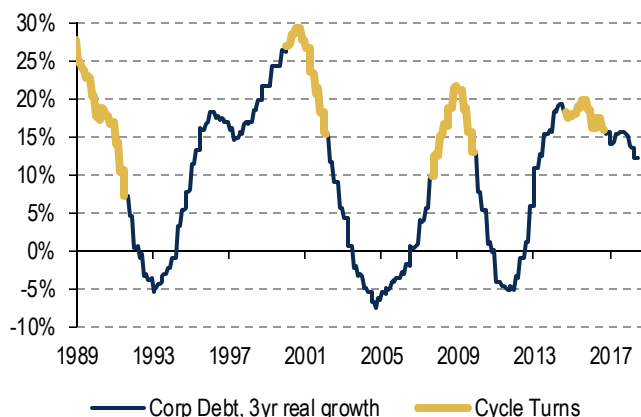
As we continue to study the state of the current credit cycle, the accumulated evidence sides with the argument that it has more room to develop, as long as few more years. Previous cycles have lasted anywhere between 6-8 years, on average, and this observation would make it an unusual development to see the current cycle extend for much longer. However, we also note that more broadly, this economic cycle has been an unusual one in many respects, including how long it took the US GDP to return to trend growth rates, the unemployment to decline, and the inflation to recover. And if those major macroeconomic variables took an unusually long time to return to normal levels, then why should we expect the credit cycle to be an average one?

Away from this argument, we also continue to believe that the commodity episode in 2015-2016 represented a partial cycle in and of itself. Among the most conclusive pieces of evidence in support of this view, we present the charts in Figure 3 for debt

growth and Figure 4 for capex. In both cases, we highlight cyclical turns, as defined by catalyst events as the starting points¹ and subsequent observed peaks in trailing 12mo HY issuer default rates as ending points.

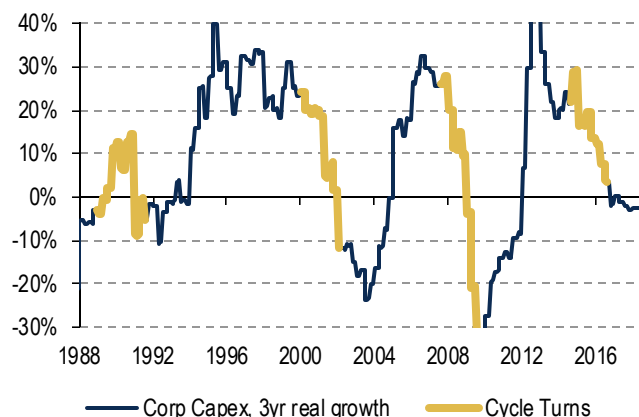
Both graphs suggest that previous cyclical turns have occurred at similar points on each respective line, had similar impact on each measure, and had left them at similar levels after defaults receded. Both graphs also suggest that a cyclical turn at current levels and given their recent trends would be inconsistent with historical experiences going into previous default cycles.

Figure 3: US non-financial corporate debt, 3yr real growth rate



Source: BofA Merrill Lynch Global Research

Figure 4: US non-financial corporate capex, 3yr real growth rate



Source: BofA Merrill Lynch Global Research

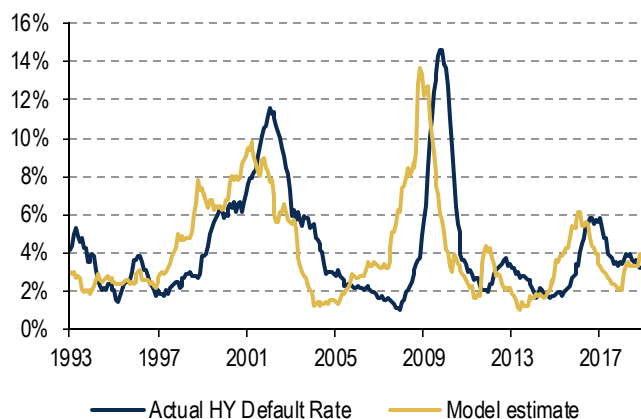
The exact timing of cyclical turns is an inherently uncertain exercise and we do not claim to possess superior skills to do so. Instead, our approach relies on using all available data and analytical tools to help us make a judgment on a relatively short next-12mo time horizon, and continue doing so as time progresses and new data becomes available. As such, we made a call that this cycle was unlikely to turn at [this point last year](#). With all the evidence we accumulated since then, we believe this view still holds today.

Our latest update to the default rate model produced a 4.0% issuer-weighted forecast for the next 12mo – a material move higher from its previous range of 3.25-3.30% throughout most of this year (Figure 5). Continued volatility shocks have reached a point where their impact is now visible as a crack in the basement of this credit cycle. The 4.0% issuer default rate would translate to 2.5% dollar-weighted rate; these compare to actual last-12mo prints of 3.3% and 2.25% respectively, so noticeable increases in realized defaults as well.

In this context, we also continue to monitor the escalation in the longest component of our default model (9-12mo, the red line on Figure 6). This particular segment has an established track record of leading other components going into each previous episode of rising defaults in 2000-2001, 2007-2008, and 2013-2014. While still low in absolute terms, this measure has increased in each of the past nine months, and so it deserves close attention going forward.

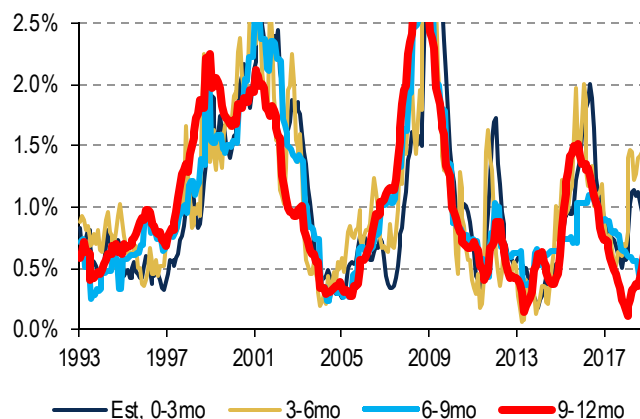
¹ We define the starting points of past credit cycles as following: Q4 1988: Drexel Lambert files for bankruptcy following a criminal conviction; Q1 2000: Tech bubble bursts; Q3 2007: Bear Stearns and BNP Paribas shut down mortgage funds; Q4 2014: OPEC's refuses to cut oil production in an effort to fight US shale competition.

Figure 5: Actual vs estimated 12mo HY issuer default rates



Source: BofA Merrill Lynch Global Research

Figure 6: Estimated default rates by time horizon



Source: BofA Merrill Lynch Global Research

Valuations and targets

Our models further translate these default expectations into a 390bps fair value spread level, in light of quantifiable liquidity conditions. Again, normally we would just use this as formal target, however we have decided to adjust this estimate higher. The model is yet to find out the latest developments in oil and GE and the shift in sentiment these events have created along the way.

In addition, volatility has set all-time lows in key asset classes in 2017 and then it shifted decisively higher in 2018 just as the Fed started rolling off its balance sheet, while the ECB and BOJ more than offset Fed's roll-downs with their purchases. As we described above, the aggregate central bank balance sheet is likely to start deflating next year for the first time since the GFC, and we think the implications of that volatility shocks could be more frequent and more significant.

This is not something we can easily model as the unwind of unprecedented policies is going to be, well, unprecedented. So we take an unusual step of adjusting our spread target wider over what our model indicates.

Taking all this into consideration, we set the new target for HY spread at 425bps, and importantly, we think the range around it is going to be wider going forward. This year we stayed +/-40bps around our spread target of 350bps most of the time. Next year, we think the range widens to +/-50..75bps, at least. Effectively, this means HY spreads could be peaking out around 500bps in this volatility episode, although we still expecting them to average 425bps in coming months.

Figure 7 below runs down our total/excess return scenarios based on credit loss and spread assumptions described above. Our base case relies on our rates team forecast of the 5yr Trsy to reach 3.25% yield by the end of next year. If HY OAS happens to be at 425bps at that point in time the index should produce +2.4% total and 1.0% excess return in that scenario. Note that realistically we are thinking about our spread target as the next meaningful level where it is likely to spend some time, not the Dec 31 level.

The low-rates column aligns more closely with our own thinking on rates where we would not be surprised to see the 5yr yield heading lower from here. This scenario ends up showing a 4.9% total return (excess is unchanged as it is a function of spread changes).

Another point to consider here is that realistically, if rates were indeed headed higher – as our rates team envisions – then we would envision HY spreads doing a little better than our base case.

Finally, as we described our thoughts on wider ranges, 2019 is not likely to be a year where you buy-and-hold-and-clip-the-coupon in HY. We think investors should remain nimble with their risk budgets: be prepared to add risk as spreads get wider and sentiment drops, but remain disciplined and lighten up into rallies. We probably will see prints of 500+ and under-400 in coming months.

Figure 7: Total/excess return scenarios

	Base-case	Low rates
HY OAS (actual)	433	433
HY OAS (target)	425	425
Change	-8	-8
5yr Trsy (actual)	290	290
5yr Trsy (target)	325	265
Change	35	-25
Effective Duration	4.1	4.1
Capital gain from spread change	32	32
Capital gain from rates change	-142	101
Total capital gain	-109	134
Effective Yield	576	576
Default Rate	4.00	4.00
Assumed current price of future defaulters	90	90
Recovery rate	40	40
Credit Loss	222	222
Total Return	2.4	4.9
Excess Return	1.0	1.0

Source: BofA Merrill Lynch Global Research

Relative value

Quality positioning

Looking at valuations across US HY quality segments we note that recent underperformance in CCCs has pushed their valuations to less stretched levels. This segment was outperforming BBs by around 650bps in excess returns going into the Labor Day and since then the differential has compressed to 150bps. The spread between CCCs and BBs has also bottomed out at 14th percentile of its historical range in September, and has since moved out to the 30th percentile (Figure 8).

Our model for CCCs ex BBs return differential now points to a neutral expected performance between these two categories going into 2019 (Figure 9).

The conclusion from all these datapoints is simple: CCCs are now priced more attractively than they were just a couple of months ago. However, we still do not find them to be attractive enough to warrant returning them to a neutral weight. The 30th

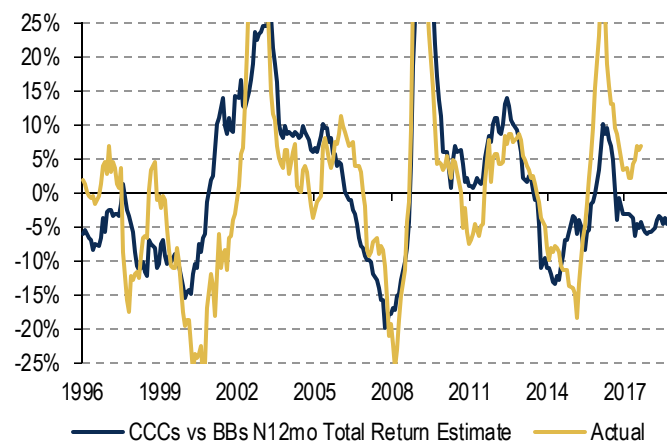
percentile on spread differential implies that they are still somewhat below historical median levels. The neutral expected performance differential implies that you are not being paid to take on materially higher credit risk.

Figure 8: CCCs ex BBs spread differential



Source: BofA Merrill Lynch Global Research

Figure 9: CCCs ex BBs total return differential + model estimate



Source: BofA Merrill Lynch Global Research

These two datapoints, coupled with what we believe to be a residual consensus overweight in CCCs to this day, tell us that it may be premature to return CCCs weight back to neutral. We recommend waiting for their valuations to normalize further, expected returns to offer some premium over higher quality, and the consensus positioning to clean out before adding risk in this segment. The 10% underweight in CCCs that we maintain here should be reallocated equally to BBs and single-Bs here.

In IG, Hans Mikkelsen thinks that higher Libor and tightening financial conditions are going to push US IG yields higher relative to non-USD assets, and expects 20-25bps wider spreads. He also points out that major global central bank monetary policy divergence could amplify this trend. Current valuations perhaps include a down payment on next year's spread widening.

Given our more benign view on rates we think IG could eventually benefit from lower rates pressures compared to the experience this year. But it needs to sort out the GE situation before the value proposition there becomes more defensible, in our opinion.

Loans

Loans have outperformed most other asset classes this year, helped primarily by the Libor component. Expectations of further increases in short-term rates should continue to stimulate loan demand for some time. We expect 2019 to be another year for competitive total returns in loans.

Neha estimates loan par default rates will climb 60bps to 2.5%, and recoveries will be lower than this year. She expects 2yr loan discount margins to average 440bps over the next 12 months, which is 40bps higher than the average this year. The range around the average will increase to 50-75bps from the current 20-30bps. Under these scenarios, loans could deliver returns of 4.2%-4.7% in 2019.

Overall, we think loans will continue to do well against HY in coming months for as long as consensus believes in the Fed remaining aggressive. The moment that belief gives way to realization that this is not going to be the case – as we expect it to – loans will probably feel the weight of poor credit quality/covenants that were previously masked by strong investor demand seeking shelter from the Fed.

Geographical positioning

In Europe, Barnaby Martin sounded appropriately cautious on credit markets going into the recent volatility episode, and he remains of the view that spreads will get wider as the whole macro and political backdrop is materially more complicated there. The EU HY market is priced somewhat better here today – at least it now offers 100bp premium over Italian 10yr. It previously traded right on top of Italy and it made little sense to us. So we like it a little more here, but we do think it will still struggle relative to US HY, in light of recent spread widening here.

EM HY was way ahead of US HY in this episode of repricing, and so it naturally fared better than US HY in recent weeks. Anne Milne expects fundamentals in those markets to improve going forward, which in combination with relatively wide spreads should produce continued outperformance. We share these views and continue to see somewhat better value in EM relative to US HY. Anne's biggest concerns are credit rating downgrades for Pemex and possibly Mexico (both still IG), so some similarities to US risks there as well.

Supply and demand

The slowdown in HY issuance is one of the surprises of this year. The perfect hindsight makes it look like an inevitability – with factors like rising rates, trade wars, and tax reform all contributing to this outcome. However this outcome was way out of consensus going into the year, and it caught us by surprise too.

So what can we learn from this experience going forward? Most importantly, we think the market remains generally open, i.e. most issuers who want to borrow can borrow on reasonable terms; there is just lack of appetite on both sides. This is not yet the case of demand drying up to an extent where financial conditions would become restrictive, although lack of appetite on the part of investors naturally leads to some degree of capital rationing, however modest at this stage.

What causes the lack of appetite on both sides? Investors appear to be most concerned about rising rates, and capital has flown towards floating rate instruments, including syndicated loans and private debt. Issuance has shifted away from bonds and towards loans, a process that was underway for a number of years, but the balance turned meaningfully negative only over the past twelve months. We accounted for at least \$22bn in new money loan issuance in 2018 where borrowers are part of the HY index, a potential 10% to HY volume that never materialized.

Our [model](#) for HY issuance bottoms out at around \$200bn annualized issuance pace over the next 12 months, although it shows a potential for a subsequent uptick later next year. Given that realized issuance has come in slightly below our model estimates over the past six months, we are making a qualitative adjustment and pencil down our formal forecast at \$185bn to account for potential factors outside of our model scope.

Year 2018 is currently on pace towards \$195bn full year issuance total (-28% vs FY 2017, if materialized), so our 2019 forecast could be another 5% off of this year's pace. At \$185bn, the HY issuance would be the slowest since 2009, and 20% below its average over the past 10 years.

Switching gears to the demand side, YTD gross issuance of is running roughly \$20bn ahead of redemptions, mostly as a function relatively strong calendar in Jan-Apr, so well behind us at this point. In 2019 we forecast calls, tenders and maturities to create \$200bn in demand for the developed market USD HY product next year, exceeding our gross issuance forecast by 8.1%.

The last time redemptions exceeded issuance, briefly, was in early 2017. Prior to that, one will have to go back to 2012 and 2009 to find such instances. In other words, such a positive technical backdrop does not happen very often in our market, and we need to take this datapoint into account while sketching out our thoughts on valuations and

performance next year. Technicals are likely to remain a supportive factor in the next few months; potentially even more so than what was the case since the early summer this year. Full details of our supply/demand forecast, including the discussion of model inputs and its track record, are available [here](#).

Separately, we are forecasting a \$410bn volume in broadly syndicated leveraged loan issuance next year, which would represent a similar 10% drop from this year's annualized pace of \$450bn.

Disclosures

Important Disclosures

BofA Merrill Lynch Credit Opinion Key

BofA Merrill Lynch Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Merrill Lynch Global Research credit recommendations are assigned using a three-month time horizon.

Issuer Recommendations: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Merrill Lynch Global Research credit recommendations are assigned using a three-month time horizon:

Overweight: Spreads and/or excess returns are likely to outperform the relevant and comparable market over the next three months.

Marketweight: Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.

Underweight: Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Merrill Lynch Global Research uses the following rating system with respect to **Credit Default Swaps (CDS)**:

Buy Protection: Buy CDS, therefore going short credit risk

Neutral: No purchase or sale of CDS is recommended.

Sell Protection: Sell CDS, therefore going long credit risk

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BofA Merrill Lynch Research Personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BofA Merrill Lynch fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for the purpose of any recommendation in relation to: (i) an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report; or (ii) a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including Bank of America Merrill Lynch trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities that may not be offered or sold in one or more states or jurisdictions. Readers of this report are advised that any discussion, recommendation or other mention of such securities is not a solicitation or offer to transact in such securities. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor for information relating to fixed income securities.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these securities are exempt from registration or have been qualified for sale.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors.

Information relating to Affiliates of MLPF&S and Distribution of Affiliate Research Reports:

BofA Merrill Lynch Global Research policies relating to conflicts of interest are described at <https://go.bofa.com/coi>.

"BofA Merrill Lynch" includes Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Merrill Lynch" and "Merrill Lynch" are each global brands for BofA Merrill Lynch Global Research.

MLPF&S distributes, or may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Investment Industry Regulatory Organization of Canada; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; DSP Merrill Lynch (India): DSP Merrill Lynch Limited, regulated by the Securities and Exchange Board of India; Merrill Lynch (Indonesia): PT Merrill Lynch Sekuritas Indonesia, regulated by Otoritas Jasa Keuangan (OJK); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (Russia): OOO Merrill Lynch Securities, Moscow, regulated by the Central Bank of the Russian Federation; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V., regulated by Comisión Nacional del Mercado De Valores; Merrill Lynch (Brazil): Bank of America Merrill Lynch Banco Multiple S.A., regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company, Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK) and Bank of America Merrill Lynch International Limited, which are authorized by the PRA and regulated by the FCA and the PRA, and is distributed in the UK to retail clients (as defined in the rules of the FCA and the PRA) by Merrill Lynch International Bank Limited, London Branch, which is authorized by the Central Bank of Ireland and subject to limited regulation by the FCA and PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been considered and distributed in Japan by Merrill Lynch (Japan), a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong)

which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by DSP Merrill Lynch (India); and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Bank of America N.A., Australian Branch (ARBN 064 874 531), AFS License 412901 (BANA Australia) and Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distribute this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of BANA Australia, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. Bank of America Merrill Lynch International Limited, Frankfurt Branch (BAMLI Frankfurt) distributes this information in Germany and is regulated by BaFin.

This information has been prepared and issued by MLPF&S and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Merrill Lynch.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Merrill Lynch clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Merrill Lynch is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by BofA Merrill Lynch entities located outside of the United Kingdom. BofA Merrill Lynch Global Research policies relating to conflicts of interest are described at <https://go.bofa.com/coi>.

MLPF&S or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. MLPF&S or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Merrill Lynch, through business units other than BofA Merrill Lynch Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and MLPF&S for the provision of research services for a separate fee, and in connection therewith MLPF&S may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom MLPF&S has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by MLPF&S). If such recipient uses the services of MLPF&S in connection with the sale or purchase of a security referred to herein, MLPF&S may act as principal for its own account or as agent for another person. MLPF&S is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright, User Agreement and other general information related to this report:

Copyright 2018 Bank of America Corporation. All rights reserved. iQprofile™, iQmethod™ are service marks of Bank of America Corporation. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Merrill Lynch. BofA Merrill Lynch Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Merrill Lynch and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Merrill Lynch.

Materials prepared by BofA Merrill Lynch Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch, including investment banking personnel. BofA Merrill Lynch has established information barriers between BofA Merrill Lynch Global Research and certain business groups. As a result, BofA Merrill Lynch does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Merrill Lynch Global Research personnel's knowledge of legal proceedings in which any BofA Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of MLPF&S, any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Merrill Lynch Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website.

Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Merrill Lynch is under no obligation to update this information and BofA Merrill Lynch's ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Merrill Lynch will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports may contain discussions and/or investment opinions relating to securities, financial instruments and/or issuers that are no longer current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with MLPF&S or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Merrill Lynch nor any officer or employee of BofA Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.