PGIM FIXED INCOME

APRIL 2019

Whiplash!

Thoughts from our Chief Investment Strategist

Back from the Brink—But What Next?

Thoughts from our Chief Economist

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FIXED INCOME OVERVIEW

Early October 2018 was only six months ago, but it may feel even more distant considering the 10-year yields in the U.S., Germany, and Japan were trading around 3.20%, 0.58%, and 0.16%, respectively. At the time, we provided our most recent forecast for the long-term central tendency for G3 rates. While we may not have anticipated reaching these levels as soon as Q1 2019, they arrived amid further evidence of sluggish global economic growth, contained—if not below target—inflation, and significant policy responses by major central banks.

- In "Whiplash!," Robert Tipp, CFA, Chief Investment Strategist and Head of Global Bonds, looks at the strong performances in Q1 and the factors that may affect the markets going forward.
- Of the specific factors that contributed to the general malaise in Q4 2018, Nathan Sheets, Chief Economist and Head of Global Macroeconomic Research, describes how each of these reversed or moved toward reversal in Q1 2019. As a result, the global economic outlook in "Back from the Brink—But What Next?" is one that appears well supported, but with numerous risks.

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Cautiously positive. While certain DM rates could correct slightly following Q1's significant rally, we expect investors' search for yield could support yields at their current levels or lower.

Agency MBS | 9

Mildly positive on MBS vs. rates despite the incoming spring supply and potentially rising prepayments. The outlook hinges on moderately low volatility and support for risk assets. We're more cautious longer term given the Fed roll off and potential MBS sales.

Structured Products | 10

Our bias remains at the top of the capital structure, which offers high risk-adjusted spreads for fundamentally remote credit risk. Down the capital stack, we are inclined to wait for a better entry point.

Corporate Debt | 11

Modestly positive near term given favorable fundamentals, healthy technicals, and potential for tighter spreads. Still favor U.S. money center banks. U.S. tax reform remains supportive.

Global Leveraged Finance | 12

Constructive on U.S. high yield. We prefer Bs and are taking advantage of the current steepness of the spread curve. In Europe, we are positive in the short term, but cautious long term amid global growth and European political concerns.

Emerging Market Debt | 13

Positive. With expectations for broadly dovish global central banks, recovering growth in China, and progress on the trade front, EM assets will likely continue performing well. Notwithstanding the strong performance in EM hard currency assets, valuations in select segments remain attractive. EM rates may also benefit from the broader backdrop, and EMFX could perform once U.S. dollar dominance recedes and EM growth outperformance becomes more apparent. We continue to focus on relative value opportunities in EMFX.

Municipal Bonds | 14

Moderately Positive. Despite the strong outperformance and relatively rich valuations vs. Treasuries, the positive technical framework is expected to remain in place through Q2, resulting in solid total returns.

Whiplash!

After the tumult of Q4 2018, investors deserved an easy quarter, and they got it. The Q4 trends of falling rates and rising economic concerns continued. But risk assets, like stocks and non-government fixed income spread products, pulled out of their nose dives with strong performances in Q1 2019. Why?

FIGURE 1: Already A Solid Year In Bonds (Total Return %)

Multi-Sector	Q1 2019	2018	2017	2016	2015
U.S. Aggregate	2.94	0.01	3.54	2.7	0.6
Euro Aggregate	2.51	0.41	0.68	3.3	1.0
Yen Aggregate	1.41	0.93	0.18	3.0	1.1
Global Agg. Hedged	2.99	1.76	3.04	4.0	1.0
Global Aggregate (USD Unhedged)	2.20	-1.20	7.39	2.1	-3.2
Individual FI Sectors	**Q1 2019**	**2018**	**2017**	**2016**	**2015**
U.S. Long IG Corporates	7.97	-7.24	12.09	11.0	-4.6
U.S. High Yield Bonds	7.40	-2.26	7.48	17.5	-4.6
EM Debt Hard Currency	6.95	-4.26	10.26	10.2	1.2
European High Yield Bonds	5.18	-3.35	6.79	10.8	1.3
U.S. IG Corporate Bonds	5.14	-2.51	6.42	6.1	-0.7
Long U.S. Treasuries	4.67	-1.84	8.53	1.3	-1.2
U.S. Leveraged Loans	3.78	1.14	4.09	9.9	-0.4
CMBS	3.24	0.78	3.35	3.3	1.0
European IG Corporate	3.20	-1.25	2.41	4.7	-0.6
Municipal Bonds	2.90	1.28	5.45	0.3	3.3
Mortgage-Backed (Agency)	2.17	0.99	2.47	1.7	1.5
U.S. Treasuries	2.11	0.86	2.31	1.0	0.8
EM Local (Hedged)	1.98	0.75	3.68	4.7	-2.2
European Leveraged Loans	1.52	1.25	3.72	7.0	3.6
EM Currencies	1.48	-3.33	11.54	3.5	-7.6
Other Sectors	**Q1 2019**	**2018**	**2017**	**2016**	**2015**
S&P 500 Index	13.65	-4.40	21.26	10.6	1.5
3-month LIBOR	0.68	2.23	1.22	0.7	0.3
U.S. Dollar	0.21	4.90	-7.85	3.2	8.4

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures and full index names. *All investments involve risk, including possible loss of capital. Sources: Bloomberg Barclays except EMD (J.P. Morgan), HY (Merrill Lynch), Bank Loans (Credit Suisse). Performance is for representative indices as of March 31, 2019. An investment cannot be made directly in an index.*

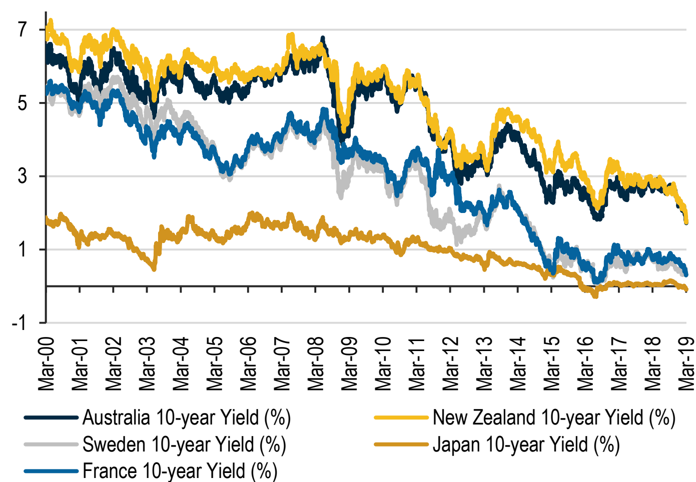
Lights On at the Central Banks

Although most central bankers thought they'd be well on their way towards normalizing policy by now—a euphemism for ending QE and raising short-term interest rates—the global economy had other plans. Instead, they've run into the reality of slowing growth and stubborn or chronic levels of below-target inflation. The good news—and presumably the difference between Q4's risk-off and Q1's risk-on—is that the central banks have embraced the truth: they need to either stop tightening (the Federal Reserve), introduce lending programs (the ECB), or at least let the markets know they're thinking about easing even though they really have no good options (the BoJ; see the Global Economics section for more).

Spectacular Government Bond Rallies: Warning Sign, Reversion to Normal, or Some of Each?

The rallies in G10 bond markets were spectacular, as much for their magnitude as for their incredibly low yields. While the Japanese JGB and German Bund markets saw their 10-year yields drop through zero, the U.S. 10-year Treasury rallied down to the Fed funds rate, completely flattening the yield curve. And the bond rally was hardly limited to the G3—its breadth also included the vast majority of developed markets and many EM rate complexes. And yet, despite the low-rate environment, economic growth in many, if not most, of these countries remains subpar and inflation generally remains solidly contained, often at below target levels. Although this is surprising to many market observers, we see this as yet another reason to acknowledge the undeniable truth we've been talking about for years: **whether it is to counter high debt levels, aging demographics, or something else, economies appear to need incredibly low rates in order to avoid the undesirable outcomes of further decelerating growth and disinflation.**

FIGURE 2: Many G10 Bond Markets Are At or Near All-Time Lows.



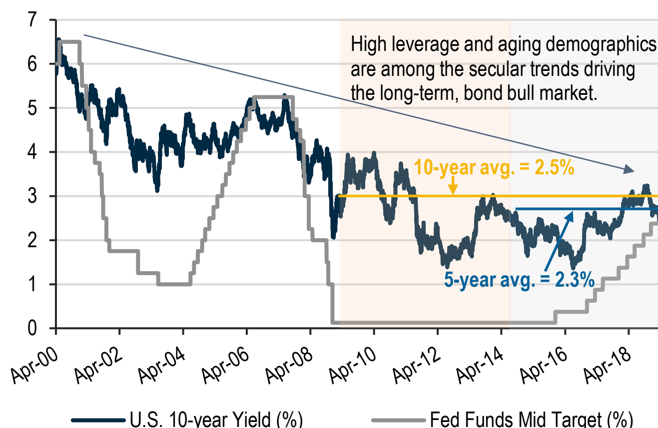
Source: Bloomberg as of March 31, 2019

The U.S. Hits Our 2.5% Central Tendency Target—and By the Way, This Is Not Extraordinary

While some have been shocked by the speed of the latest drop, in terms of the level, the U.S. 10-year yield is just around its average of the last five (2.3%) to 10 years (2.5%). The stimulus and recovery of recent years has taken rates a bit above average at times. Now, as the impact from the Trump fiscal stimulus wanes and the economic expansion ages, it seems quite reasonable that the 10-year yield would drop towards what we see as the market's current central tendency of around 2.5%. The flattening of the curve, however, has raised the question: are we on the precipice

of a recession? While we don't think so (see Global Economics section), the flattened curve—along with intermittent market volatility and uneven economic data—has firmly pushed the Fed into caution mode. **In turn, the Fed's vigilance and open mindedness should ensure that policy remains appropriate, thus supporting the extension of the economic expansion.**

FIGURE 3: The Impressive Rally in the U.S. 10-year Yield Brought It Back to the Middle of the Range of the Last Several Years and to Our Estimate of the Current Central Tendency. Longer Term, the Range May be More Biased to Fall than Rise Given the General Economic Backdrop of High Leverage and Aging Demographics.



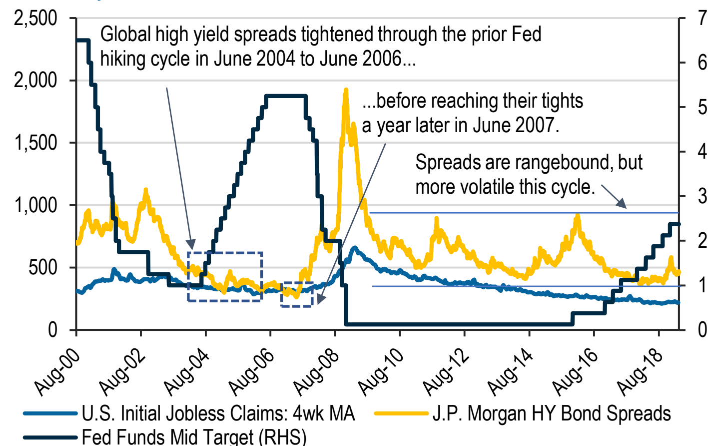
Source: Bloomberg as of March 27, 2019

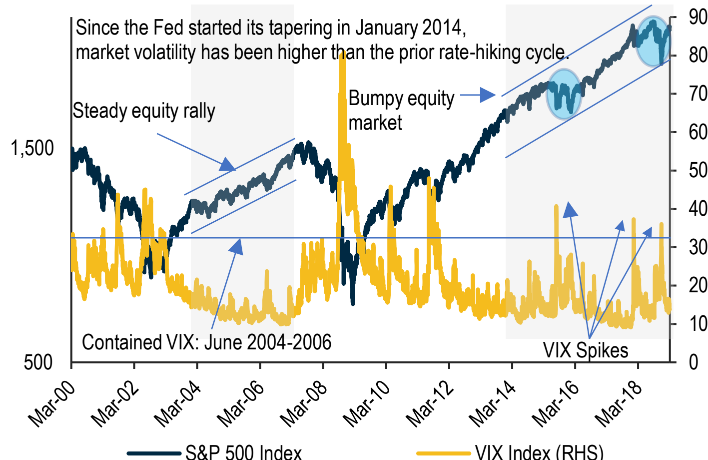
Risk Product Set to Mirror Last Cycle: Ongoing Outperformance, But with More Volatility

In the prior rate-hiking cycle of 2004-2006, U.S. high yield spreads actually hit their cycle tights in mid-2007—well after the end of the rate-hiking cycle. The secular trend towards wider spreads did not begin until the economy headed south. As an economic proxy, Figure 4 shows jobless claims, a high-frequency economic indicator that rose from mid-2007, signaling both a loss of economic momentum and the coming bear market in risk assets. Spreads have been more volatile this cycle, but, similar to the past cycle, have been in a narrowing range as the Fed has gradually raised rates. However, the higher volatility seems odd given the comparatively smooth decline in jobless claims.

Similar to high yield spreads, equities generally performed well through and beyond the rate hike cycle of 2004-2006, and volatility—as measured by the VIX—was generally contained, as shown in Figure 5. While equities have also performed fairly well over this cycle, whether clocked from the taper tantrum in mid-2013 or the first rate hike at the end of 2015, it has been a choppier ride. This is not only seen in terms of the steep corrections suffered in Q4 2015, Q1 2016, and the two corrections in 2018, but it is also evident in the spikes in equity volatility, which have been more frequent and more wrenching. Higher indebtedness, slower growth, limited policy options in economic downturns (given the low interest-rate environment), and the end of most of the high-liquidity QE policies have coalesced to create a more skittish investment backdrop that is likely to remain for the foreseeable future.

FIGURES 4 AND 5: During the Last Fed Rate Hiking Cycle, Spreads Were Relatively Rangebound, Volatility Was Contained, and Equity Prices Rose. While the General Market Contours Are the Same This Cycle—i.e. Favorable Spread and Equity Performance Overall—Volatility Has Been Much Higher, Probably the Result of Higher Leverage, Slower Growth, and Central Banks' Proximity to the Zero Lower Bound.





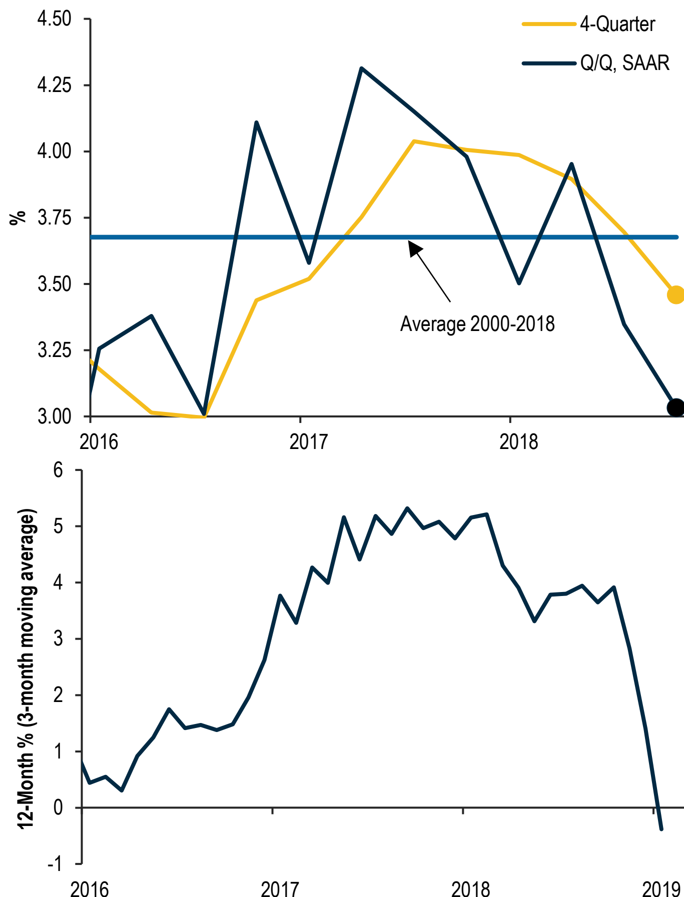
Source: Bloomberg as of March 29, 2019

The Bottom Line: Stay on the horse. True, bond markets have experienced a scorching rally, there may be some near-term "give back," and volatility is likely as economic data and risk factors rear their heads. But overall, the evidence of sluggish growth seems to point to a continuation of the trend towards low (and lower) developed bond yields—a formula that perpetuates a global search for yield. On balance, that should create a favorable return environment for spread product, and bouts of volatility may continue offering above-average opportunities to add value through sector allocation, issue selection, and positioning in currencies and interest rates.

Back from the Brink—But What Next?

As Q4 2018 concluded, the global economy and markets were on the ropes. Spreads were rising sharply, equity markets were falling, and the prospects for global growth seemed in serious jeopardy. The incoming data now allow us to assess the dimensions of that softness. Global real GDP growth in Q1 sagged to 3% (Figure 1), its weakest performance since mid-2016. The slowdown was broad-based and included the United States, the United Kingdom, Canada, China, Turkey, and Poland. In addition, global trade growth retreated (Figure 2), and other key measures of activity also showed weakness.

FIGURES 1 AND 2: Global GDP Growth and Trade Volume



Sources for Figures 1 and 2: Haver Analytics as of March 29, 2019

The underlying drivers of the slowdown were four-fold. First, the Chinese economy was recording a sustained slowing, largely reflecting the harsher-than-anticipated effects of the government's de-risking campaign. In tandem with the slowdown in China, the euro-area manufacturing sector went into reverse. Second, through much of Q4, markets fretted about the implications of the ongoing trade war between the U.S. and China. Even after the early December agreement between President Trump and President Xi to begin negotiations, concerns about further escalation persisted. Third, especially following the Federal Reserve's December meeting, sentiment was hit by a perception that the Fed would be inflexible in its pursuit of higher rates and balance sheet reduction. Fourth, the whiff of an "adverse feedback loop"—whereby declines in markets kicked off deterioration in sentiment, undercut activity, and ultimately dragged markets down further—seemed to be emerging. As one example, measures of U.S. business confidence declined sharply.

Quite remarkably, all four of these factors reversed or moved toward reversal in Q1. The Chinese authorities have announced their intention to support growth. The central bank cut the reserve requirement ratio by 100 bps in January, and the pace of credit expansion has begun to pick up. In addition, the government has announced a series of fiscal measures, including a 3% cut in the value added tax (VAT). The impact of these actions has not yet registered in the "hard" economic data, but this evidence should emerge during the next several months. Furthermore, the U.S.-China trade war now seems to be on a de-escalating trajectory. In addition to the sustained imbalance in bilateral trade, the negotiations are focused on tough structural issues—like China's practices on intellectual property, technology transfer, and non-tariff barriers—and are thus taking some time. But we anticipate an agreement in the coming months. Similarly, the Fed's tone shifted abruptly in January, including adopting a "patient" policy stance with no "strong prior" regarding the direction of the next move. At the March meeting, the Fed decided to begin tapering its balance sheet reduction in May and to conclude the process in September. Other central banks have also taken steps to soften their policy stances. At the ECB's March meeting, it introduced another round of TLTROs and extended its commitment to keep rates low.[1] Finally, in the context of these developments, global financial markets have rebounded, and financial conditions have become more supportive of growth, reversing the Q4 tightening (Figure 3).

FIGURE 3: Global Financial Conditions Index

Source: Office of Financial Research, U.S. Treasury as of March 29, 2019. Note: Index avg. from 2000-present=0

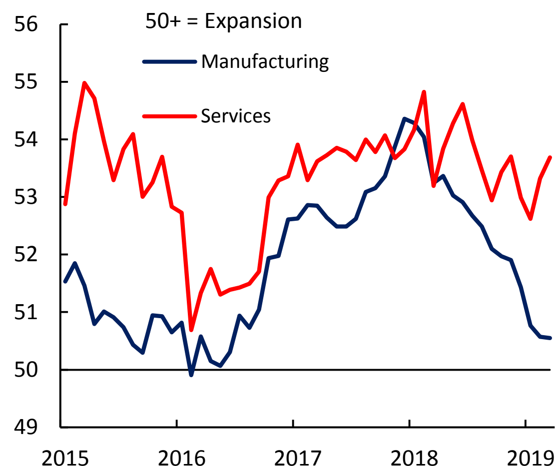
[1] *TLTROs are targeted longer-term refinancing operations.*

GLOBAL ECONOMIC OUTLOOK

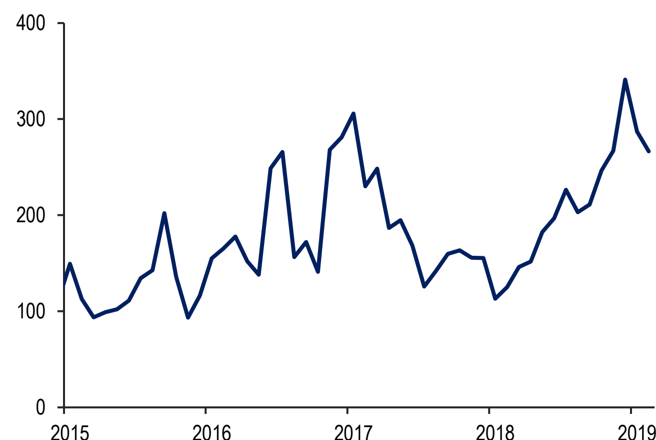
The global economy is thus likely to be well supported over the next few quarters. Growth in the United States should continue above trend, boosted by the strong labor market, solid consumer sector, and continued fiscal stimulus. In July, the current U.S. expansion will become the country's longest-lived of the post-war period. Chinese growth, as noted above, should pick up soon and satisfy the government's target of 6.0% to 6.5%. The rebound in China should help the euro-area's export sector recover. This, along with the euro area's solid labor markets and consumer sector, should keep growth there a bit above 1%, which is near trend. Japan is also poised to expand near trend this year, despite the envisioned hike in the consumption tax, and conditions in emerging markets are generally improving following last year's disruptions. **All told, we anticipate that the global economy will put in a solid, albeit lukewarm, performance this year, expanding 3.5%, slightly less than its average since 2000.**

As always, we see numerous risks around this forecast—economists are paid to worry. Most prominent, the global data have not yet shown much improvement. For example, the PMI for global manufacturing (see Figure 4) is hovering near the 50 breakpoint between expansion and contraction. The PMI for services is firmer, but just moving sideways. And measures of global economic uncertainty remain elevated. As such, global growth may disappoint. The pick-up in China may take longer to arrive than we anticipate or show less vigor. Similarly, we have marked down our euro-area growth forecast nearly 0.50 percentage points since the beginning of the year, and, despite the ECB's recent actions, the downside risks have not been fully extinguished. On the policy front, President Trump may surprise again and re-ignite the trade war. This might happen two ways. First, he could become impatient with the pace of China negotiations and short-circuit them by hiking tariffs. Second, if agreement with China comes quickly, President Trump might see an opportunity before the 2020 elections to launch auto tariffs against Europe. In addition to winning concessions in the auto sector, this might be viewed as a tool for prying open European agriculture. As a related point, the renegotiated trade deal with Mexico and Canada (USMCA) faces tough sledding in the U.S. Congress, although it should eventually be approved. In the geopolitical sphere, we are monitoring the tortuous path of the Brexit negotiations. Even so, we judge that the economic implications—on the upside or the downside—are likely to be limited beyond the United Kingdom. In addition, uncertainties regarding North Korea, Iran, and Venezuela continue to percolate.

FIGURES 4 AND 5: Global PMIs and Global Economic Policy Uncertainty Index



Source: Haver Analytics



Source: Bloom Index as of March 29, 2019; newspaper articles mentioning economic policy uncertainty

The remainder of this section considers major countries and regions in more detail.

United States: While U.S. economic growth was solid in both Q4 2018 (2.2%) and 2018 as a whole (2.9%), momentum was slowing into 2019. Downside risks emerged amidst the broader global growth slowdown, the escalating trade policy uncertainty, the government shutdown, and the usual volatile winter weather. All of this was reinforced by a sharp tightening of financial conditions, particularly following the Fed's December FOMC meeting, at which it was seen as still in tightening mode.

But economic data since then have firmed, albeit not quickly enough to prevent a possible sub-2% reading for growth in Q1 2019. Core durable goods orders and shipments suggest that demand for investment equipment remains solid; both the manufacturing and services ISM surveys remain in expansionary

territory; housing activity, although volatile, suggests some stabilization after last year's downtrend; hiring has averaged 185,000 over the past three months, and wage gains are at cycle highs. Looking ahead, many of the temporary headwinds have faded. In particular, the Fed has taken the lead in a global dovish pivot of central banks that should support economic activity over the next several quarters. **While the U.S. fiscal impulse will not be as strong in 2019 as it was in 2018, the government spending portion, in particular, should provide a solid addition to this year's growth, leaving our 2019 forecast for U.S. growth still in the mid-2% range.**

In the wake of the Fed's dovish turn, we now anticipate that it is most likely done hiking rates this cycle and will follow through on announced plans to slow the pace of its balance sheet runoff in May and stop it altogether at the end of September. Chairman Powell emphasized, though, that the Fed's dovish shift was largely due to muted inflation trends (core PCE inflation has undershot 2% for almost all of the last ten years), as the Fed's forecasts for growth, while now lower, still anticipate a solid, close-to-trend pace going forward.

Euro Area: The economic weakness that befell Europe in the middle of last year continued in Q1 and is now casting a shadow over Q2. The manufacturing sector remains in recession amidst uncertainties about global trade policy, China-related weakness in export demand, and several potent Europe-specific shocks. Industrial production has continued to slide, and order books have not turned up. That said, tentative signs of stabilization in some of the larger manufacturing sectors outside of Germany are starting to emerge, while service sector PMIs are showing green shoots.

Given these developments, we have cut our 2019 growth forecast to 1.2%, but we continue to anticipate a moderate recovery during the second half of the year. This base case is underpinned by expectations that China stimulus is gaining traction and, in the interim, that household spending will hold up.

As its March meeting approached, the ECB was confronted with growing concerns that its toolbox may be largely empty. In response, it took significant policy action. The ECB announced another round of TLTROs, which are designed to defuse liquidity pressures in the banking system. It also extended its forward guidance, committing to refrain from rate hikes through year end. **The latter move came as a surprise and is tantamount to an extended pause to its policy normalization. Although this action is likely to shore up the outlook, it begs the question of what policy action may be next, if any, given that a resumption of QE seems highly unlikely, absent a sharp downturn.**

Political risks remain pronounced. The May EU parliamentary elections may still result in a premature end to the Merkel era, and questions about Italy's fiscal stance are likely to once more dominate market attention by mid-year.

Japan: The quarter-to-quarter volatility in Japanese economic activity has continued this year, as a Q4 2018 rebound appears to have been followed by weak growth in Q1 2019, owing largely to softness in the external sector. Underlying domestic demand has been expanding at a reasonably solid pace, however, fueled by modest growth in consumer spending and solid business investment. The strengthening labor market has continued into 2019, with employment up 1% year-over-year in January. Inflation has remained positive, albeit muted, at 0.7% (excluding fresh food) as of February, and households have benefited from wage growth that has modestly outpaced inflation. **Additional volatility surrounding the expected increase in the consumption tax in October is likely, but on net, we anticipate close-to-trend growth in real GDP of around 0.8% for the year as a whole.**

Given weak GDP growth early this year and persistently low inflation, we think the BoJ may look to loosen monetary policy a bit further this year, but any stimulus is expected to have only a modest impact. Meanwhile, a fiscal package aimed at strengthening the workforce by emphasizing education, childcare, and eldercare is expected to help offset the negative economic impact of the consumption tax hike.

China: Developments in China have been somewhat puzzling of late. Key economic data, including readings for trade and credit, have shown unusual volatility. First-quarter data are always difficult to interpret, given the seasonality related to the Lunar New Year festivities, but this has been especially so this year. In addition, the annual gathering of the National People's Congress in March offered somewhat contradictory policy measures: large tax cuts, but little announced change in the headline deficit; an ambitious growth target of 6.0% to 6.5%, but an intention to keep credit growth only in line with nominal GDP, thus likely insufficient to achieve the target. This uncertainty about the economy's performance and the trajectory of policy, however, has not forestalled a surge in the Chinese equity market in recent months.

While admittedly far from a clear-cut case, we take these developments as broadly consistent with our call for significant additional policy stimulus in China. **We expect this stimulus to increasingly support domestic economic activity in coming months and, subsequently, spill over into more buoyant global growth. Our view notably requires a significant widening of the underlying fiscal deficit (measured according to international standards), credit growth well above nominal GDP growth, and probably a loosening of property restrictions during the months ahead. If such moves are not forthcoming, we would see considerable downside risk to our 2019 growth forecast of 6.3%.**

Emerging Markets: The moderation—and in some cases reversal—of global economic headwinds, discussed in the opening section of this essay, has afforded emerging markets additional degrees of freedom to maintain accommodative policy stances. In

this context, we now project a slower pace of policy normalization by most EM central banks and, in some cases, additional policy relaxation. At the end of last year, we expected generally higher or steady policy rates through year-end 2019. As the external backdrop turned more favorable, coupled with the general absence of inflationary pressures and the lingering slack in several economies, **we revised our forecasts and now pencil in a more gradual policy normalization or stable rates for Latin America and most of EMEA. In Asia, we now anticipate additional policy loosening in many countries (India, Indonesia, Malaysia, Philippines and Thailand). Hungary is a notable exception since concerns over core inflation dynamics and a positive output gap will likely prod authorities to moderately tighten policy.**

Beyond the global drivers, the outlook for emerging markets has also been shaped by a broad set of country-specific developments. In Latin America, the new administration of Brazilian President Jair Bolsonaro validated market expectations by submitting to congress a relatively robust pension reform bill, which is expected to be passed by year end. In Mexico, the stalled opening of the energy sector, along with the lack of a clear strategy by the AMLO administration to address the state oil company's structural vulnerabilities without compromising fiscal accounts, has further eroded confidence in the country's investment narrative. Argentina's struggle to consolidate financial stability has continued amidst an inconsistent implementation of the revamped IMF program, with political constraints becoming more binding ahead of October's general election. Ecuador reached an agreement with the IMF to engage in a three-year Extended Fund Facility (EFF) aimed at addressing the challenging funding and balance of payments positions. A vexing political backdrop poses risks to the execution of this program, nonetheless. In Venezuela, the emergence of a parallel government under Juan Guaido—recognized by the United States, the European Union, and a majority of regional peers—amidst heightened sanctions against the regime of Nicolás Maduro, has upped the ante on a potential transition; the ongoing stalemate, however, underscores the uncertainties about the eventual outcome.

Elsewhere, presidential elections in South Africa and Ukraine will be crucial for the future of these two major EMEA countries. In South Africa, very low growth, poor service delivery, frequent black-outs, and corruption scandals have severely dented the ruling ANC party's popularity and put Moody's investment-grade credit rating at risk. President Cyrill Ramaphosa's likely victory may be the last chance for the country to avoid becoming a sub-investment grade credit. Ukraine's elections will determine whether the country's effort to clean-up corruption and pursue economic adjustment will continue along the path prescribed by the IMF program.

Developed Market Rates

The decline in rates throughout most of Q1 accelerated late in the quarter after the latest dovish pivots by the ECB and the Federal Reserve. The breadth of the decline left 10-year yields in several countries at multi-year or record lows (see Figure 2, Bond Market Outlook). Amid the renewed prevalence of DM government debt with yields near zero or in negative territory, **we believe investors' search for yield will continue to benefit markets that stand out globally, i.e. U.S. Treasuries, while others, such as the Canadian and German markets, could experience relatively minor, short-term corrections.**

The Fed continued its pivot into the March FOMC meeting when the median Fed funds projections for 2019, 2020, and 2021 each fell by 50 bps. The Committee also indicated that the balance sheet roll off—a policy widely viewed as a modest tightening measure—would slow in May and end in September 2019. **Looking ahead, we maintain long positioning at the back of the Treasury curve (7 years to 30 years) amid a relatively elevated term premium, and we expect the U.S. 10-year yield to trade in a potential range of 2.25-2.75%. We also expect the U.S. swap spread curve to steepen, led by the 10-year and 30-year segments, while the front of the swaps curve could outperform Treasuries amid elevated Bill issuance in early Q2.**

The ongoing weakness in European economic and inflation data—e.g. the precipitous decline in Germany's March PMI to 44.7 from more than 62 in late 2017—led to a bull flattening along the Bund curve. **With that backdrop, we expect low and rangebound Bund yields going forward, but will monitor for any sign of stabilizing growth on improving growth expectations in China and progress on U.S./China trade negotiations. We also remain underweight Bunds versus interest-rate derivatives. In Japan, slow growth and a general lack of rising inflation toward the BoJ's 2.0% objective should also keep JGB yields low and rangebound. That said, there is still some scope for the 20-year segment of the JGB curve to outperform, and we maintain underweight positioning at the front of the curve.**

Outlook: Cautiously positive. While certain DM rates could correct slightly following Q1's significant rally, we expect investors' search for yield could support yields at their current levels or lower.

Agency MBS

Following a turbulent Q4 2018, agency MBS was another sector that benefited from the Fed's dovish pivot, even amid further signs of reduced demand. In Q1, agency MBS posted an excess return of 28 bps vs. Treasuries, recovering about half of 2018's negative excess return. We expect the sector to maintain its course relative to Treasuries and corporate bonds as Q2 begins, yet we're more cautious longer term amid potential developments with the Fed. Indeed, the FOMC provided an update at its March meeting that it will start slowing its balance sheet roll off in May and conclude the roll off at the end of September. At that point, the Fed will reinvest its MBS maturities into Treasuries through the secondary market at a maximum of $20 billion per month with any excess set to be reinvested into agency MBS. As the Fed mulls the longer-run composition of its asset holdings, it also stated that "limited sales of agency MBS might be warranted in the longer run."

MBS prepayments were quite benign given Q1's seasonality with the conventional universe paying a conditional prepayment rate of about 7 and the GNMA universe paying a CPR of about 10 in February. Overall, prepayment speeds are expected to increase by at least 30% given Q2's spring seasonality and Q1's 50 bps drop in mortgage rates. This will return the mortgage market to CPRs that were typically experienced over the past two years. Gross MBS supply started 2019 slowly at $150 billion with $26 billion of net supply—roughly $22 billion less than the same period in 2018. The reduced supply has likely been due to a combination of December's housing market slowdown and delayed refinancings as rates fell. Net supply estimates for 2019 remain in a range of $225-250 billion.

On the regulatory side, in March, SIFMA approved Single Security UMBS for TBA trading, and on March 12, UMBS began trading for June settlement. With the approach of UMBS settlement, Gold TBAs appreciated to Fannie Mae issues as dealers scrambled to cover their TBA shorts vs. specified pools. Elsewhere, FHFA nominee Mark Calabria is expected to be confirmed to the post in Q2. His Senate hearing showed strong deference to Congressional authorization for larger GSE reform, but it remains to be seen if his well-documented leanings to a smaller GSE footprint will result in changes needing only the FHFA's authorization. The Trump administration also directed the Treasury and HUD to develop a GSE reform plan "as soon as practicable." The adoption of Single Security validates the GSE's Common Securitization Platform as the future state for GSE reform. Including HUD (and GNMA) will begin the dialogue to determine agency MBS' ultimate guarantor.

Our positioning remains concentrated in specified pools with 4.0% issues as the preferred coupon. Pools appreciated meaningfully in Q1, which could continue given the deterioration in TBAs. We will continue to seek opportunities to increase weighting in seasoned pools where we anticipate production will negatively impact TBA valuations. We generally intend to maintain OAS and convexity profiles that are better than those in the benchmark index as the market adjusts to UMBS implementation. Although GNMAs have grown from about 35% to 50% of YTD net supply, we will look to rotate Gold 4.0% pools into GN2 4.0% pools.

Outlook: Mildly positive on MBS vs. rates despite the incoming spring supply and potentially rising prepayments. The outlook hinges on moderately low volatility and support for risk assets. We're more cautious longer term given the Fed roll off and potential MBS sales.

Structured Products

Our fundamental outlook for securitized assets remains unchanged from last year. Specifically, we view the structural features of senior securitization tranches as meaningful protection against the recent marginal deterioration in collateral quality. In 2018, our up-in-capital structure positioning, while subject to spread widening, performed well relative to other risk assets, including mezzanine structured products and other fixed income spread sectors. More recently these structured bond spreads, while tightening, have not kept pace with the rally in other spread products. **Nevertheless, we continue to view, on a risk-adjusted basis, senior-securitized assets as compelling relative value while maintaining our generally negative bias against mezzanine tranches.**

Non-Agency: We remain constructive on residential housing and post-crisis mortgage credit, but expect home price appreciation to slow. Affordability has come under modest pressure from higher home prices and last year's selloff in mortgage rates, yet should benefit from the interest rate rally since November. On the positive side, household formation from the millennial cohort is finally showing improvement, and loosening underwriting standards (relaxed GSE standards and non-QM mortgages) are making credit more available. Legacy non-agency spreads were 10 bps tighter on the quarter to LIBOR+140 bps. We expect spreads to be rangebound as a steady buyer base balances declining secondary trading. We are net sellers of legacy non-agencies as other sectors, for example AAA CLOs, offer more risk-adjusted value. Fannie/Freddie CRT spreads rallied significantly with M2 tranches in ~60 bps to L+230. Spreads are not compelling at these levels given the liquidity challenges for the CRT sector (owners exclude a broad by number of "large" holders, and spreads are supported by Street-supplied repo), and we cut positioning in line with the rally. Additionally, higher percentages of high debt-to-income borrowers in GSE production since mid-2017 may lead to higher than expected credit losses should employment soften. **Our favorite trades in non-agency RMBS are those that provide senior financing on higher-quality mortgage pools.** Spreads on these transactions are about L+150, roughly unchanged over the quarter.

In the UK, senior prime and non-conforming RMBS securities were tighter by 15-25 bps. **While collateral fundamentals remain stable, we find better relative value in other global structured products sectors (e.g., U.S. CLOs and CMBS).** Ongoing headwinds, such as Brexit-related uncertainty and a cooling UK housing market, could weigh on spreads in 2019. That said, 2.0 securitizations are currently finding strong demand for refinancing.

CMBS: Collateral underwriting remains stable for new issue CMBS. Pockets of weakness are emerging in select submarkets, including NYC offices. In addition, hotel concentrations remain elevated and suburban office concentrations have increased in conduit deals as investors eschew retail exposure. Although cap rates were relatively stable, cap rate risk premiums increased above their long-term averages as the 10-year Treasury yield declined. This provides some cushion to CRE valuations should rates rise again. Overall, property sectors appear to be in equilibrium with limited new supply (except for hotels in certain markets and high-end apartments) coupled with strong leasing demand leading to low and stable vacancy rates. CRE values were up 6% in 2018 and are now 27% above the previous peak in 2007. Limited supply—expectations for 2019 are $30-$35 billion of conduit supply vs. $40 billion in 2018—against steady demand suggest favorable spread technicals, yet demand has lagged other spread sectors. CMBS AAA spreads followed broader markets tighter in Q1, closing the quarter at S+87 bps from S+105 in early Q1. **We continue to favor senior tranches of broadly diversified conduit CMBS and investments from senior to mezzanine in select single asset/single borrower transactions where we like the property fundamentals.** GSE reform creates uncertainty for agency CMBS markets, particularly around issuance. **We do not believe reform will pose a threat to the credit quality of agency CMBS. In fact, technicals could turn positive if supply were to wane. We continue to like agency CMBS as a diversifier with spreads in the high-S+50 bps range for 10-year paper.**

ABS: Consumer ABS collateral performance remains stable across a broad array of asset types due to strong employment and responsible credit underwriting standards, with excesses only at the margins (e.g., marketplace lending). Commercial ABS performance remains solid, although the risks are more industry specific. ABS spreads were tighter in Q1 with 3-year senior cards trading at L+28 (-2 bps), 2-year senior autos at L+28 bps (-2 bps), 3-year senior consumer loans at L+75 (-10 bps), and 5year senior refinance private student loans at L+85 bps (-10 bps). New issuance reached $57 billion YTD, slightly slower year-over-year, and we expect supply to normalize toward 2018 levels. **Our current preference is for shorter maturity profiles to mitigate the impact of the next business cycle. As such, we continue to have an up-in-quality focus and favor select issuers with strong legal and compliance procedures in unsecured consumer loan, subprime auto, and private refinance student loan, with a bias toward those with underwriting based on income vs. FICO centric models.**

CLOs: Top-of-the-capital structure CLO spreads lagged the broader spread rally in Q1 2019 and were basically unchanged YTD. Top tier managers trade at L+133 bps. We believe the spread lag has been technically driven and does not reflect fundamental concerns. CLO technicals have been challenged as new issuance remains ahead of expectations with limited new anchor investors. Fundamentally, senior CLO tranches remain resilient to underlying bank loan credit performance and industry sector pressures due to issuer and industry diversification and significant credit enhancement. Bank loan defaults remain low as financing markets remain receptive to supply. However, we expect lower recoveries in the next default cycle relative to historical observations. We expect top tier AAA spreads to remain in the 135 bps area and AA

spreads to drift towards the high 190 bps. **We believe senior CLOs continue to offer excellent risk-adjust returns. We remain cautious on mezzanine spreads as we do not believe the market is pricing in potentially lower loan recoveries and higher ratings volatility.**

Outlook: Our bias remains at the top of the capital structure, which offers high risk-adjusted spreads for fundamentally remote credit risk. Down the capital stack, we are inclined to wait for a better entry point.

U.S. and European Corporate Bonds

U.S. and European corporate bonds rallied in Q1 2019 in concert with the other risk assets. The markets' positive tone was supported by solid, albeit slowing, global economic growth, the Federal Reserve's decision to pause its rate-hiking cycle, ongoing support from the ECB, easing global trade tensions, and the fact that the Q4 2018 selloff left many issues undervalued.

	Q1 Total Return (%)	Q1 Spread Change (bps)	OAS (bps) 3/31/19
U.S. Corps.	5.14	-34	119
European Corps	3.20	-29	123

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures. *All investments involve risk, including possible loss of capital. Represents data for the Bloomberg Barclays U.S. Corporate Bond Index and the Bloomberg Barclays European Corporate Bond Index (unhedged). Source: Bloomberg Barclays as of March 31, 2019. An investment cannot be made directly in an index.*

U.S. Corporate Bonds

In Q1, U.S. corporates delivered 273 bps in excess return to similar-maturity U.S. Treasuries with long-term BBB-rated corporates turning in the strongest results. Credit metrics remained stable overall with strong free cashflows, historically high profit margins, ample liquidity, and tailwinds from corporate tax reform. **Going forward, we look for fundamentals to remain healthy, although earnings and profit margins will likely weaken.**

Triple-B rated corporate bonds continued to dominate headlines in Q1 as investors feared a turn in the credit cycle may push a majority of these issuers to high yield status. In reality, most companies have a number of options to cut leverage and stave off a downgrade, including floating public equity to raise capital, selling assets, and reducing dividends and share buybacks. We estimate that, in 2018, if most of the 25 largest USD high-grade issuers had diverted capital used to pay dividends and share repurchases to instead service debt, they would not only cover their 2018 interest expenses but would also make a dent this year's debt maturities. Recently, AT&T even tied lower leverage targets to 20% of management's short-term incentive compensation—a powerful motivation. While we agree some BBB issuers may be downgrade candidates if growth slows, we believe many more companies will take deleveraging steps to maintain or improve their ratings.

New issuance remained high, but manageable, at just below last year's pace. Demand was equally strong, particularly from non-U.S. buyers given lower currency hedging costs. Concessions averaged 0 to 5 bps. New issuance to fund M&As continued apace, but was lower year-over-year and should fall further given new tax rules that incent companies to hold less debt. In 2019, gross new supply could decline about 10% and net supply up to 30%.

At this stage of the credit cycle, we are overweighting lower-quality, shorter maturities and underweighting higher-quality, long-maturity corporates. We continue to favor better-quality U.S. financials and select European banks, electric utilities, and taxable municipal bonds over industrials that may be subject to event risk or slowing economic growth. We are negative on lower-rated financials. We are also searching for value in BBB-rated issuers that are poised to deleverage (select healthcare, telecom, and pipeline issuers) and are finding value in select post-event issues.

European Corporate Bonds

European corporate spreads also tightened considerably in Q1, closing at levels similar to those at the end of October 2018. As in prior quarters, credit fundamentals were robust, but have likely passed their peak; economic data was lackluster; and political discord weighed on market sentiment more than fundamentals—the possibility of a no-deal Brexit, rioting in France, trade wars, Italy's budget woes, etc. On a positive note, the ECB announced a new TLTRO program to incent banks to keep credit flowing and extended its "no rate hike" pledge to the end of 2019. Owing to a mix of weak European economic data and the Fed's softer stance, European rates declined with the 10-year bund entering negative territory (-7 bps) at quarter end, a level not seen since late 2016. While it appears developed market central banks may be coming to terms with the "lower for longer" rate theme, some European insurance companies have moved into longer maturities to hit their yield targets. Volatility may emerge along the way, however, as demand for yield could be offset by fears of stalling economic growth.

New supply was manageable with most deals coming at discounts of 2-3 bps, on average, vs. 14 bps at the start of the year. Improving flows from overseas investors helped to offset the end of the ECB's corporate bond buying program. Investment banks continued to run low inventories, exaggerating spread movements at times. In all, the new TLTRO program could reduce gross issuance to €450 billion in 2019 (vs. prior estimates of €500 billion).

In European portfolios, we are slightly short spread duration, but long spread risk. We remain overweight banks, but are looking to reduce exposure into strength. We are also overweight insurance and non-core REITS, as well as non-

euro issuers. We remain overweight U.S. corporate issuers and are taking advantage of companies coming to the EUR market with large concessions relative to the issuer's USD holdings and EUR issuers of similar quality.

Global Corporate Bonds

In global corporate portfolios, we favored the higher level of EUR spreads in Q1, although with the recent spread tightening EUR and U.S., spreads are now much more comparable. **We remain flat to underweight GBP credit spreads and are slightly short spread duration. We still prefer money center banks, insurance companies, and U.S. utilities denominated in USD, as well as banks and select corporates denominated in EUR. We are reducing exposure to issues with potential tail risks that may be vulnerable to spread widening and are taking advantage of price and yield dislocations between EUR and USD bonds of the same and/or similar issuers.**

Looking forward, we hold a modestly positive, short-term view on the U.S. and Europe. Spreads have already tightened notably, but could remain at today's levels or push tighter. Risks include geopolitical tensions, Brexit, European politics, trade disruptions, downturns in economic growth across major countries (including China), and a flattening/inverted U.S. yield curve.

Outlook: Modestly positive near term given favorable fundamentals, healthy technicals, and potential for tighter spreads. Still favor U.S. money center banks. U.S. tax reform remains supportive.

Global Leveraged Finance

Apart from intermittent weakness, the U.S. and European high yield markets rebounded strongly in Q1. Although weaker-than-expected European data late in Q1 prompted a swift sentiment change, the sector ended the quarter firmly in positive territory.

	Q1 Total Return (%)	Q1 Spread Change (bps)	OAS/DM (bps) 3/31/19
U.S. High Yield	7.40	-128	405
Euro High Yield	5.18	-110	405
U.S. Leveraged Loans	3.78	-83	467
Euro Leveraged Loans	1.52	-6	436

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U.S. Leveraged Finance

In the first quarter, the U.S. high yield marked posted excess returns of +564 bps vs. swaps. Over the same period, spreads tightened 128 bps and are now 89 bps above the post-crisis tight of 316 bps that was reached in early 2018.

By quality, while CCCs led the way in Q1 with an excess return of +629 bps vs. swaps, they have only partially recouped the Q4 2018 excess return vs. swaps of -1261 bps. Meanwhile, Bs and BBs generated Q1 excess returns vs. swaps of +558 bps and +553 bps, respectively. Energy was the top performing sector in Q1, helped by a 29% bounce in oil prices amid pledged production cuts. The Airline sector was the weakest performer on margin pressure associated with higher oil prices.

Default activity continued to fall globally. According to Moody's, the trailing 12-month global speculative grade issuer default rate ended February at 2.1%, down from 2.3% at year-end 2018. **Looking ahead, Moody's expects the global default rate to continue its downward trend with the global speculative-grade default rate falling to 1.5% by the end of Q1 2020, which is consistent with our view as well.**

Demand for U.S. high yield turned positive in the first quarter on generally positive market sentiment. In aggregate, retail bond funds reported quarterly inflows in excess of $13 billion.

The new issue pipeline has been generally slow to develop in 2019 with U.S. high yield gross issuance totaling just $65 billion. Despite lower gross issuance as refinancing activity has declined, net new issuance has jumped by 35% from last year due to a pickup in acquisition-related volume. The quality of the new issue calendar also continued to improve in Q1 with only about 10% of volume coming from split-B- or CCC-rated issues. Issuance in these low-rated categories has not dipped below 10% since 2002. The high yield market also has issued a greater number of senior secured bonds as the Fed's dovish tilt shifted demand to fixed-rate paper and away from floating-rate secured loan issuance.

We remain constructive on U.S. high yield amid solid fundamentals (strong earnings and low defaults), favorable supply technicals, dovish central banks, and our view that visible risks (U.S./China trade dispute, Brexit, U.S. fiscal stimulus cliff in 2020, etc.) will not cause a recession in the next 18 months.

We're opportunistically adding to out-of-benchmark positions, such as European reverse Yankee issues, high-quality bank loans, and select fallen angel candidates. We're also tactically moving out the spread curve as we seek to take advantage of its steepness **and are maintaining overweights to independent power producers and U.S. consumer-related names. We remain cautious on commodities.**

Notwithstanding pressure from steady retail outflows, the U.S. leveraged loan market held in well in Q1 with the S&P/LSTA Leveraged Loan Index posting excess returns of +306 bps vs. swaps for the quarter. Despite the resilience, the percentage of loans trading above par as of quarter end was below 10%.

After closing 2018 with four consecutive weekly outflows of $1 billion or more, flows out of loan funds persisted in Q1. Overall, loan funds reported outflows over $10 billion in Q1 as the streak of consecutive weekly outflows reached 17 weeks. New issue volume in loans also declined in Q1, with issuance totaling about $66 billion as repricing and refinancing activity collapsed. This compares to $242 billion in Q1 2018. U.S. levered loans have experienced technical pressure from a slowdown in CLO formation and less concern about rising interest rates. Because of this near-term technical weakness, the relative value of loans has improved, particularly in the double-B and higher-quality part of the market. **Our favorable long-term view of BB-rated vs. B-rated loans is supported by our conviction that these credits have relatively lower debt loads, less earnings volatility, and enhanced liquidity relative to single-B issuers.** These factors result in enhanced lender protection, debt coverage, and higher recovery values than their single-B peers.

European Leveraged Finance

European high yield got off to a strong start in 2019, with the European high yield index posting an excess returns of +438 bps vs. swaps, snapping back sharply from Q4's weakness. Concerns around decelerating global growth were largely shrugged off due to accommodative central bank policies, a lack of new issue supply, and a stabilization/reversals of fund flows, all of which helped drive spreads tighter by 110 bps (to 405 bps)

Echoing the trend from Q4, the European high yield primary pipeline remained relatively quiet in Q1. Overall, gross issuance totaled €9.4 billion, which compares to €19.6 billion in Q1 2018. On a net basis, issuance is close to zero, as almost all offerings have been used to refinance existing debt. In what had been a drag on the market in 2018, fund flow activity stabilized during the quarter, led by continued strong demand for the short duration segment of the market. Moody's default rate dropped below 1% (to 0.9%) for the first time since September 2008. Europe has yet to record a default this year.

While European leveraged loans lagged European high yield bonds in Q1, the asset class successfully recouped all of Q4's underperformance. Gross leveraged loan supply totaled €20.4 billion in Q1, which was comfortably absorbed by the market. With expectations for the near-term pipeline to remain relatively light, the market's technicals appear well supported.

Looking ahead, we believe healthy fundamentals, favorable supply technicals, accommodative central bank policy, and low recession/default risk will bode well for European high yield in the short term. While uncertainty remains surrounding European economic growth, we believe the high yield market is poised to deliver positive returns in 2019. In terms of positioning, we continue to believe B-rated issuers and select CCC-rated issuers offer the best risk/reward dynamic. We remain focused on short-duration, catalyst driven opportunities as we evaluate long-end cyclical exposure. We also continue to seek attractive relative-value opportunities between sterling and euro credits, while maintaining our cautious view on European retail and construction sectors in the periphery. Within loans, our constructive view remains as technicals appear supportive. However, caution should be exercised amid weak underwriting standards.

Outlook: Constructive on U.S. high yield. We prefer Bs and are seeking opportunities along the steep spread curve. In Europe, we are positive in the short term, but cautious long term amid global growth and European political concerns.

Emerging Markets

The turn of the year roughly marked the bottom of the EM fixed income selloff. In Q1 2019, the hard currency Global Diversified index outperformed, led by higher risk countries such as Argentina (+6.88%), Ecuador (+15.35%), Venezuela (+30.28%), Iraq (+8.81%), and Angola (+13.49%). Hedged local bonds and EM currencies lagged hard currency, but had respectable positive returns. In hedged local bonds, the winners included previously unloved Mexico (+6.79%), Philippines (+7.56%), and South Africa (+3.51%). The rally was driven by global macro and emerging market factors. The Fed and ECB's shift to a more accommodative stance was augmented by increased China stimulus, more positive news regarding Argentina's external accounts and IMF program, and optimism that pension reform in Brazil may be passed in Q3.

	Total Return (%)	Spread / Yield Change (bps)	OAS (bps)/Yield %
	Q1	Q1	3/31/19
EM Hard Currency	6.95	-64	351
EM Local (hedged)	1.98	-0.29	6.16
EMFX	1.48	0.74	6.04
EM Corps.	5.15	-35	336

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Our forecast for EM growth this year is 4.6%, only slightly below last year's 4.7% pace. Importantly, the differential between EM and DM growth is working in favor of the former given the slower activity in the U.S. and euro zone. Even with slower growth in China compared to last year, our base case is that it will bounce back in coming quarters. This is key to our view on EM more broadly. The impact of China's stimulus measures taken to date should begin to show up in Q2. In the context of a supportive developed market central bank framework, with the absence of the "tighter" global liquidity that dominated last year, **growth in China of between 6.0-6.2% should be supportive of EM assets. Healthy growth in other pockets of EM, including India and Indonesia, and a recovery in Brazil should keep overall EM growth at the 4.6% level.** The accommodating DM environment is echoed in EM—

tame inflationary pressures with a few outliers (e.g. Argentina and Turkey). EM external liquidity, solvency, and balance of payment dynamics are stable compared to 2018. While trade has not driven growth (even with more attractive EMFX), multilateral support and issuers' market access has kept external dynamics in check.

Technicals remained supportive amid elevated investor cash levels after the 2018 selloff, meager new issue sovereign supply ($171 billion vs. $148 billion YTD 2018), and robust inflows into hard currency funds of $27.4 billion. The strong primary market performance indicated the support. A recent Ghana deal was more than seven times oversubscribed, and a Sri Lanka 10-year offering that priced in early March traded 50 bps tighter. The inflows into local currency funds were a much smaller $7.3 billion, which was reflected in the relative performance of local assets.

Going forward, we remain positive, particularly on EM spreads and local rates. Spreads rallied 70 bps YTD, but are still around 100 bps wider than early 2018 levels. IMF programs in Argentina, Ecuador, Pakistan, Ukraine, Ghana, Egypt, and other countries should keep macro policies heading in the right direction while providing a liquidity backstop if needed. Select EM local bond markets, such as Mexico, Russia, Russia, and Indonesia, offer real yields in excess of 4% on a forward basis, compared to nearly zero to negative real yields in the developed world. These EM local markets should be buttressed by declining levels of global inflation. In EMFX, we hold a less directional view. The dovish Fed and low levels of market volatility should be generally positive for EMFX, but this is offset by global growth uncertainty. This keeps us focused on relative value positioning—generally long Latin American and Asian currencies vs. shorts in CEEMEA.

The risks to our generally positive view include weaker than expected global growth, a re-ignition of the U.S./China trade spat, or geopolitical turbulence associated with Russia, Venezuela, or other countries. The upcoming elections in Ukraine, Turkey, and Argentina could be additional sources of volatility, as could the relatively untested new governments in Mexico and Brazil. But with rates expected to stay low and valuations attractive, we think that returns on EM assets will be solid through the end of the year.

Outlook: Positive. With expectations for broadly dovish global central banks, recovering growth in China, and progress on the trade front, EM assets will likely continue performing well. Notwithstanding the strong performance in EM hard currency assets, valuations in select segments remain attractive. EM rates may also benefit from the broader backdrop, and EMFX could perform once U.S. dollar dominance recedes and EM growth outperformance becomes more apparent. We continue to focus on relative value opportunities in EMFX.

Municipal Bonds

In Q1 2019, AAA municipal yields fell by 29 bps to 42 bps across the curve, and municipals significantly outperformed U.S. Treasuries. The 10-year and 30-year Muni/Treasury yield ratios finished Q1 at 77.1% and 92.2%, respectively, lower by 7.6 ratios and 7.8 ratios, respectively. Attractive valuations and a declining-rate environment contributed to strong demand for tax-exempt munis and the sector's outperformance. Mutual fund net inflows totaled $22.5 billion YTD, a record start to a year. Increased retail demand can also be attributed to the SALT deduction cap under the Tax Cuts and Jobs Act of 2017 as investors in high-tax states seek additional ways to shelter income. The 5/30s municipal yield curve flattened by 5 bps to 103 bps as investors extended along the curve. Total returns in Q1 were +2.90% and +3.83% for the high grade and high yield indices, respectively. Long taxable municipal total returns were 5.55% in Q1, underperforming the long corporate index (7.97%). Excess returns for long taxable municipals of 204 bps in Q1 lagged the long corporate index (412 bps).

Supply was readily absorbed with gross supply of $75 billion in Q1, a 15% increase vs. prior year. This number excludes the $12 billion in restructured COFINA bonds, which began trading in February following the debt exchange. The restructured COFINA bonds are non-rated and represent approximately 7.5% of the Bloomberg Barclays High Yield Muni Index. Trading activity has been robust as certain investors (largely hedge funds) exited the trade and tax-exempt mutual funds and other investors were active buyers. **Despite the strong outperformance and relatively rich valuations vs. Treasuries, the positive technical framework is expected to remain through Q2, especially as we approach the typically strong reinvestment period toward quarter end. In addition, a stable- to declining-rate environment should contribute to continued mutual fund inflows. We expect that investors will continue extending along the curve, leading to additional flattening of the municipal curve.**

Several states have experienced YOY declines in income tax revenues, which they attribute to the SALT deduction cap. Investors will closely follow March and April revenue collections for signs of a rebound if tax payers did indeed delay their tax filings. Following the successful COFINA debt exchange in Q1, investors will now focus on Puerto Rico GO debt restructuring negotiations as the Federal Oversight and Management Board (FOMB) intends to submit a GO restructuring plan by the end of 2019.

Finally, we continue to expect taxable municipals to perform in line with corporate bonds, with potential for outperformance in a corporate spread widening environment.

Outlook: Moderately Positive. Despite the strong outperformance and relatively rich valuations vs. Treasuries, the positive technical framework is expected to remain in place through Q2, resulting in solid total returns.

IMPORTANT I NFORMATION

Source of data (unless otherwise noted): PGIM Fixed Income and Bloomberg as of April 2019

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U.S. Investment Grade Corporate Bonds: Bloomberg Barclays U.S. Corporate Bond Index: The Bloomberg Barclays U.S. Investment Grade Corporate Bond Index covers U.S.D-denominated, investment-grade, fixed-rate or step up, taxable securities sold by industrial, utility and financial issuers. It includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

European Investment Grade Corporate Bonds: Bloomberg Barclays European Corporate Bond Index (unhedged): The Bloomberg Barclays Euro-Aggregate: Corporates bond Index is a rules-based benchmark measuring investment grade, EUR denominated, fixed rate, and corporate only. Only bonds with a maturity of 1 year and above are eligible.
U.S. High Yield Bonds: ICE BofAML U.S. High Yield Index: The ICE BofAML U.S. High Yield Index covers US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, and at least one year remaining term to final maturity as of the rebalancing date.

European High Yield Bonds: ICE BofAML European Currency High Yield Index: This data represents the ICE BofAML Euro High Yield Index value, which tracks the performance of Euro denominated below investment grade corporate debt publicly issued in the euro domestic or eurobond markets. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P, and Fitch). Qualifying securities must have at least one year remaining term to maturity, a fixed coupon schedule, and a minimum amount outstanding of €100 million.

IMPORTANT I NFORMATION

U.S. Senior Secured Loans: Credit Suisse Leveraged Loan Index: The Credit Suisse Leveraged Loan Index is a representative, unmanaged index of tradable, U.S. dollar denominated floating rate senior secured loans and is designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

European Senior Secured Loans: Credit Suisse Western European Leveraged Loan Index: All Denominations EUR hedged. The Index is a representative, unmanaged index of tradable, floating rate senior secured loans designed to mirror the investable universe of the European leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

Emerging Markets U.S.D Sovereign Debt: JP Morgan Emerging Markets Bond Index Global Diversified: The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for U.S.D-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. To be deemed an emerging market by the EMBI Global Diversified Index, a country must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies.

Emerging Markets Local Debt (unhedged): JPMorgan Government Bond Index-Emerging Markets Global Diversified Index: The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments.

Emerging Markets Corporate Bonds: JP Morgan Corporate Emerging Markets Bond Index Broad Diversified: The CEMBI tracks total returns of U.S. dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries.

Emerging Markets Currencies: JP Morgan Emerging Local Markets Index Plus: The JP Morgan Emerging Local Markets Index Plus (JPM ELMI+) tracks total returns for local currency–denominated money market instruments.

Municipal Bonds: Bloomberg Barclays Municipal Bond Indices: The index covers the U.S.D-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment grade (Baa3/BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch.

U.S. Treasury Bonds: Bloomberg Barclays U.S. Treasury Bond Index: The Bloomberg Barclays U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Mortgage Backed Securities: Bloomberg Barclays U.S. MBS - Agency Fixed Rate Index: The Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

Commercial Mortgage-Backed Securities: Bloomberg Barclays CMBS: ERISA Eligible Index: The index measures the performance of investment-grade commercial mortgage-backed securities, which are classes of securities that represent interests in pools of commercial mortgages. The index includes only CMBS that are Employee Retirement Income Security Act of 1974, which will deem ERISA eligible the certificates with the first priority of principal repayment, as long as certain conditions are met, including the requirement that the certificates be rated in one of the three highest rating categories by Fitch, Inc., Moody's Investors Services or Standard & Poor's.

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