Global macro strategy

Moderating financial conditions could support risky assets in the second half of 2018

Market conditions have changed markedly since the beginning of the year. Last year's strong and steady asset performance has given way to much higher volatility. We believe this change has been driven to a large extent by a tightening in financial conditions. However, we believe this shift toward tighter financial conditions will moderate over the next six months. This could mean a more positive environment for risky assets in the second half of the year.
We believe financial conditions were driven tighter at the start of this year by temporarily higher core inflation and more difficult short-dated funding conditions driven by corporate tax reform. The inflation scare in the first few months of 2018 led to a sell-off in US Treasuries as investors digested an increase in core inflation from 1.8% at the end of December to 2.1% at the end of April 2018. This unexpected increase in inflation not only drove Treasury yields higher, but also helped the market to price in an additional Federal Reserve rate hike this year – upping the total number of probable hikes anticipated by the market from two to three. The amount of inflation compensation as measured by Treasury Inflation-Protected Securities (TIPS) breakevens also increased by 43 basis points since hitting a low last summer. Because this jump in inflation occurred in an environment of rising growth expectations, 10-year Treasury yields broke above 3%, levels not seen since 2014 (Figure 1).

In addition to the sharp move in longer-term interest rates, the so-called “LIBOR-OIS spread” (the difference between the London Interbank Offered Rate and the Overnight Indexed Swap Rate) reached a peak of around 55 basis points during the same period. This spread measures bank funding costs relative to risk-free funding costs and elevated levels typically signal financial sector credit stress. In this instance, however, the increase in the LIBOR-OIS spread was not driven by deteriorating credit conditions but rather a combination of very large Treasury bill issuance and selling of short-dated corporate paper incentivized by US tax reform (see our article in the April Global Fixed Income Strategy report, What’s up with US dollar Libor?).

These market movements created an overall tightening in financial conditions, in our view. We interpret tighter financial conditions according to a framework based on the idea that changes in factors such as growth, inflation and financial conditions drive much of market performance. We believe that understanding these “macro factors” can help us understand market conditions and price action. Our macro factor framework suggests that the recent financial conditions tightening has led to the poor performance of risky assets such as stocks and credit in the past few months. For example, the excess return on the Bloomberg Barclays US Corporate Investment Grade Index year-to-date is -0.79%, compared to 3.46% for 2017. However, while some of the factors driving this weakened performance could persist, we believe several factors are likely to moderate over the next six months, which could enable the performance of risky assets to stabilize or improve.
First, we believe core inflation is likely to decrease from current levels. As we have written previously, much of the bounce in inflation so far this year has been due to base effects from statistical abnormalities in 2017 – in other words, comparisons to an unusually low base. Although these effects are currently dissipating, inflation will likely remain biased slightly higher in the short term due to increases in auto and hotel costs following the hurricanes in late 2017. As these temporary effects roll off, and as the effect of weaker rental costs begin to feed through to consumer price inflation, we expect core inflation to cool as the year progresses. Second, growth is likely to stay strong, but should not increase from our current estimate of around 2.8% for 2018. We believe a slower pace of inflation and stable growth are likely to reduce the need for the Fed to hike beyond the two additional hikes this year currently priced into the market. Based on our moderating inflation outlook, we also expect two additional rate hikes this year, for a total of three.

We believe changing macro factors suggest changes in market performance. Lower inflation should help keep the sell-off in interest rates contained, in our view. If the Fed does slow the pace of rate hikes, it will likely limit the rise in short-dated interest rates relative to long-dated interest rates, causing the US Treasury yield curve to steepen. Limited increases in short-dated interest rates are likely to support non-US currencies versus the US dollar. These price changes are also likely to contribute to easier financial conditions on balance, which could help risky assets outperform in the second half of this year.

James Ong, Senior Macro Strategist, Rob Waldner, Chief Strategist
Global macro strategy (continued)

Interest rate outlook

US: Neutral. We expect increased Treasury supply to begin pressuring yields higher into year-end while fundamentals are supportive of lower yields. We expect inflation to begin softening in the second half of 2018, and believe that US growth expectations have peaked (allowing room for data disappointment). Volatility in US rates is likely to persist over the near term as geopolitical concerns remain in the spotlight, particularly in Europe and North Korea while Chinese trade negotiations loom. As a result, we are neutral on US rates.

Europe: Underweight. Political headlines out of Italy have been the main drivers of European government bond markets, with a government coalition agreement between the two Italian populist parties, the Five Star Movement (M5S) and Lega, initially taking shape but then failing, leaving the prospect of new elections. German bund yields rallied, benefiting from a flight to quality, while European peripheral spreads underperformed, led by Italy. However, the two populist parties have finally managed to agree on forming a government with Conte as prime minister, which calmed market sentiment and saw Italy rally again. Meanwhile, there has been some stabilization in euro-area economic data after a weak first quarter, and headline inflation picked up significantly this month to 1.9% primarily on the back of higher oil prices. We think European Central Bank (ECB) asset purchases will likely extend into December 2018 and expect the tapering decision to be announced in July.

China: Overweight. We continue to see attractive opportunities in onshore government bonds in the medium term, although range-bound trading is expected in the near term. With new asset management rules in place, we expect demand for Chinese government bonds, especially shorter-term bonds, to increase. In our view, regulatory tightening has pressured non-bank financial institutions, and we see limited room for the central bank (PBoC) to tighten liquidity further from here. In addition, lowering financing costs in the real economy remains a major objective assigned by top policy makers, all suggesting less upward pressure on yields in the near term. Liquidity could tighten mid-year and we expect to see further reserve requirement ratio (RRR) cuts at the end of the second quarter or early in the third quarter.

Japan: Neutral. The Japanese economy recorded negative growth in the first quarter according to preliminary data. Weak consumption was one catalyst. While these prints can be revised, we believe future revisions will confirm that the economy has peaked for now. The recent wage negotiation round went relatively well, although there are very few signs that this positive news is putting meaningful upward pressure on inflation. In fact, the April headline and core measures of inflation both disappointed to the downside. Inflation is still below the Bank of Japan’s (BoJ) 2% inflation target. Therefore, in our view, the BoJ is likely to keep policy unchanged through 2018, and the 10-year Japanese government bond yield will likely continue to trade between 0.0%-0.1%.

United Kingdom: Neutral. The Bank of England (BoE) kept rates on hold at its May meeting. While there is still the possibility of a hike later in the year, an escalation in Brexit uncertainty could create a difficult environment for tightening policy. The UK economy continues to disappoint, as consumers are reluctant to spend and inflation is declining. If these trends continue, market participants may price out the possibility of a 2018 hike completely. The Brexit issue remains unresolved, but we maintain our base case that there will be a soft-Brexit, at worst. Any indication that the UK-European Union (EU) relationship will remain as is for an extended period (two-three years) would most likely prove positive in the shorter term, as it would bring about some certainty for both consumers and businesses.
Global macro strategy (continued)

Canada: Neutral duration. The most recent headline employment report was disappointing, but the underlying details were more positive. Wages are showing some signs of strength, partly due to recent increases in the minimum wage. NAFTA negotiations are ongoing. Canada faces some headwinds due to corporate tax policy changes in 2017 that have made Canada less competitive for companies going forward. The Bank of Canada (BoC) left the overnight target rate unchanged in May, but appears ready to continue their rate hiking cycle. We believe the recent high of 2.52% in 10-year Canadian government yields should hold for the time being.3

Australia: Neutral. The Reserve Bank of Australia (RBA) continued to hold rates steady at its May meeting. The quarterly Statement on Monetary Policy remained upbeat on the economy and revised up the RBA’s inflation expectations. However, it is still concerned with consumer spending and persistently low wage growth. The soft first quarter retail sales report confirmed those concerns and the unemployment rate has ticked up recently despite a strong job market. Due to continued above-trend economic growth coupled with low inflation and wage growth, the RBA will likely hold rates steady through the remainder of the year.

India: Neutral. We like current yield levels from a valuation perspective but expect interest rate volatility observed over the last few months to persist for some time. We believe the risks going forward are tilted toward higher yields as higher crude oil prices, the increase in core inflation over past few months and the uncertainty around minimum support prices for crops have increased fears of further upside surprises in headline inflation. We expect inflationary pressure to ease in the second half of 2018 and would likely favor buying local interest rates as inflation and crude oil prices stabilize.

Rob Waldner, Chief Strategist, James Ong, Senior Macro Strategist, Noelle Corum, Associate Portfolio Manager, Reine Bitar, Macro Analyst, Yi Hu, Senior Analyst, Sean Connery, Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

Global macro strategy (continued)

Currency outlook

USD: Neutral. We expect dollar weakness over the long term as global monetary policy converges toward the US and the Fed grows cautious due to softening inflation. As a result, we expect investors to look for better investment opportunities elsewhere, which would result in flows out of the US, weighing on the US dollar. In this environment, we would look to short US dollars. In the near term, however, we have moved to neutral as global growth has waned slightly and US growth remains supported by fiscal stimulus.

EUR: Neutral. We continue to expect further euro appreciation due to the broader US dollar trend. We continue to view pullbacks in the euro as consolidation within a longer-term trend higher. However, until there is more clarity on the political situation in the European periphery we are neutral, despite the euro's current valuation.

RMB: Neutral. The US dollar renminbi exchange rate traded in a range of 6.3-6.4 in May\(^1\), and we believe its performance will continue to be driven by the movement of the US dollar and, to a lesser extent, by corporate capital flows. With US-China trade frictions reduced for now, policy uncertainty related to the US dollar renminbi exchange rate has eased. European data releases and market risk sentiment are likely to have more influence on US dollar strength going forward, and thus the renminbi's performance. In the near term, we continue to expect the US dollar renminbi exchange rate to trade in the range of 6.3-6.5.

JPY: Neutral. The global backdrop of above trend growth and low inflation is likely to make the central bank reluctant to tighten monetary policy aggressively. Macro risks are centered on geopolitical developments (US-China trade tensions, US-North Korea relationship, Brexit discussions, US-Europe tariffs, the Iran nuclear deal, to name a few). An unexpected outcome to any of these could lead to a flight to quality, which typically benefits the yen.

GBP: Neutral. The outcome of Brexit negotiations is likely to dictate sentiment as we approach the June EU summit. There is potential for both internal politics among Conservative party politicians and external politics, such as discussions with EU member countries, to negatively impact sterling in the run-up to this event. In the meantime, the UK economy continues to underperform on a relative basis. However, as the Brexit picture becomes clearer (our base case is for a soft-Brexit at worst), we would expect sterling to appreciate.

CAD: Neutral. The Canadian dollar has been largely disconnected from the price of oil recently. While oil has been in a consistent uptrend this year, the Canadian dollar has been generally weaker versus the US dollar. The economic data have been mixed – employment data have softened while inflation and wages are showing improvement. The BoC left the overnight target rate unchanged in May, but appears set to continue gradually increasing rates going forward.

AUD: Neutral. The RBA held rates steady at its May meeting. The statement had very few changes from previous months. According to its quarterly Statement on Monetary Policy, the RBA continues to expect above trend growth and gradual improvement in inflation and wage growth. It remains concerned with consumer spending but much less so than previous statements suggested. The latest budget has increased government spending and tax cuts, which should boost the economy. The RBA continues to stress “patience” in its statements and will likely leave rates unchanged for the foreseeable future.

INR: Neutral. The rupee has experienced a significant sell-off in recent weeks largely driven by the increase in crude oil prices, foreign portfolio outflows and investor fears of a higher current account deficit. Looking ahead, although the growth outlook remains favorable, the outlook for the rupee remains uncertain. We believe risks are tilted to the downside due to increases in the US dollar, rising crude oil prices and a widening current account deficit.

Ray Uy, Head of Macro Research and Currency Portfolio Management, James Ong, Senior Macro Strategist, Yi Hu, Senior Analyst, Sean Connery, Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

\(^1\) Source: Bloomberg L.P., May 1, 2018 to May 24, 2018.
Global investment themes

Global credit themes

Geographical themes

Investment grade (IG): Fundamental outlook remains strong, but “Goldilocks” market technicals turning lukewarm

Rationale

Corporate credit fundamentals continue to improve across most geographies and sectors, with impressive earnings and revenue growth reported during the 1st quarter 2018. Leverage has come down slightly from cycle highs in 2016 with little pressure from shareholders to increase leverage to fund growth. In addition, corporate tax reform has penalized high levels of interest expense, thus we expect balance sheet improvement to continue. Regulatory changes should reduce cost structures (financials specifically) and enable opportunities for revenue growth. Despite the constructive fundamental backdrop, we have seen weakening demand from foreign investors as tightening monetary policy drives currency hedging costs higher. Another key factor pressuring demand for shorter-term bonds include the repatriation of overseas cash by US corporations, much of which is invested in short maturity IG corporates. We also expect the uptick in US Treasury issuance to shift from T-Bills to longer maturities, posing another drag on technicals as the Fed scales back its bond reinvestment program. Fortunately, institutional demand for long-end corporate bonds remains robust, and domestic flows into mutual funds and ETF’s remains positive, albeit much slower compared to last year. European credit markets are generally earlier in the credit cycle and less levered, although Brexit and political uncertainties in Italy and other countries remain. With credit spreads in many asset classes now wider from cycle tights and a fundamental outlook that remains supportive, IG credit market returns should stabilize.

IFI strategy

We have recently moved to neutral from overweight IG credit, favoring Europe over the US, UK and Asia. Key drivers to monitor include 1) future changes in monetary policy from the Fed, ECB, BoJ and BoE, viewed on an aggregate basis for their impact on global credit flows 2) development of fiscal and regulatory policy changes 3) “hard” economic data to confirm the increase in “soft,” sentiment-based leading economic indicators.

Emerging markets (EM): Valuations adjust as overall favorable fundamentals remain intact

Rationale

A tightening in US financial conditions via a sharp rise in the US dollar was the proximate cause for a downward re-pricing across EM currencies and credit. Market concerns over external funding led to high volatility in both Argentina and Turkey, two countries perceived by the market as vulnerable to an environment of tighter financial conditions given their high and rising external imbalances. In an effort to restore market confidence, policymakers in both countries have responded to the volatility by raising domestic policy rates. Overall, EM fundamentals remain favorable, with growth momentum having picked up, low inflation and declining external financing needs. In context of still-benign financial conditions and more-attractive valuations – particularly relative to US high yield – we believe EM credit offers compelling value on a medium-term basis.

IFI strategy

We continue to prefer selected high-yield EM sovereigns given relative valuations to EM corporates, particularly as we favor exposure to credit over interest rate risk. We favor Latin America over Europe and Asia and are underweight Central and Eastern Europe. We are focused on sovereigns that have underperformed without a meaningful fundamental catalyst: Lebanon, Oman and quasi sovereigns.
**US commercial mortgage backed securities (US CMBS): Notable decline in primary market issuance, watching retail industry fundamentals**

**Rationale**
Negative retail news continues to dominate headlines. However, we are generally not advocates of selling stronger US CMBS credits since they are often hard to replace. While we still expect slightly positive net issuance, given the move higher in rates and decline in transaction volume, we now expect lower issuance than our original $80 billion non-agency CMBS projection. US property price growth continues; however the pace is slowing, most notably in the office and retail sectors. In contrast, demand for multi-family and industrial properties remains robust.

**IFI strategy**
Given the significant move in spread tightening we prefer seasoned US CMBS as the cycle progresses. We think AAA-rated US CMBS look most attractive. Credit-differentiation is accelerating, placing a premium on selection, so we must navigate large regional mall concentrations. Single property borrowers can be an effective tool to manage desired exposures.

**US residential mortgage backed securities (US RMBS): Favorable fundamentals, valuations fair, Credit Risk Transfer (CRT) securities market depth improving**

**Rationale**
Mortgage underwriting quality remains high, while the home price outlook is expected to normalize as affordability declines after strong price gains. Limited housing supply and long-term negative net issuance remain dominant factors in US RMBS. Valuations appeared stretched relative to other asset classes following outperformance during 2017 in legacy US RMBS and below-IG CRT.

**IFI strategy**
We favor higher quality legacy prime, alt-A, and seasoned BBB-rated CRT. We are avoiding sub-prime, coastal concentrations, and option adjustable-rate mortgages.

**US asset backed securities (US ABS): Value in floaters, fundamentals normalizing, favorable technical**

**Rationale**
Normalization of credit underwriting and our forecast for a healthier economy should support consumer credit performance in 2018. As the overall market continues to weigh the longer-term impact of Trump administration policies and additional rate hikes from the Fed going forward, uncertainty should be supportive of a more stable, shorter-duration US ABS market.

**IFI strategy**
We favor adding exposure to floaters where collateral performance remains stable. We believe senior prime auto US ABS and esoteric issuers can provide opportunities. We are avoiding deep subprime auto US ABS.

**Sector themes**

**Commodities: Global supply concerns creating energy volatility, prefer pipelines**

**Rationale**
We expect global IG credit risk premia to remain relatively more volatile as energy and metals credits reflect supply imbalances, offset by credit friendly financial engineering. Credit quality is in focus due to economic growth and risk of volatility due to OPEC, US crude supply, fiscal policy implementation and Fed uncertainty.

**IFI strategy**
We favor gaining exposure to pipeline credits with favorable idiosyncratic credit catalysts that provide downside protection at attractive yields.
Global investment themes (continued)

### Consumer story more nuanced globally, watching US fiscal policy influences

**Rationale**
Solid US labor market and consumer confidence are supportive, but consumers are more value and delivery conscious, while international retail demand remains uneven. We are watching the European consumer for any post-Brexit behavior shifts.

**IFI strategy**
We favor selected US consumer sectors including leisure and housing-related sectors. We are negative on “big box” and mall-based retailers that lack differentiated products. We favor EM consumer sectors on a selective basis. We are more cautious on the automotive original equipment manufacturer (OEM) sector given excess inventory.

### Post-merger and acquisitions (M&A) deleveraging plays

**Rationale**
M&A activity has moderated but remains a risk, driven by large overseas cash balances, repatriation, potential post-tax law changes, moderate financing costs, still modest organic revenue growth, and the need to reposition business portfolios.

**IFI strategy**
We prefer to play post-transaction bond issuance typically characterized by size, liquidity, concessions and plans to deleverage. We believe a discriminating approach to this strategy is warranted due to a lower, but still large, M&A-related pipeline.

### Global technology - big data

**Rationale**
We expect global use of data to grow and a transition to cloud-based platforms.

**IFI strategy**
We prefer to gain exposure to software and services, cell towers and select wireless issuers. We have avoided hardware original equipment manufacturers.

### Yield curve themes

**Credit curve positioning, long end valuations getting full**

**Rationale**
Rising currency hedging costs and repatriation of overseas corporate cash resulted in underperformance of the front end earlier in the year, but this space has stabilized. This has caused credit curves to flatten from previously steep levels, particularly 3-5’s and 5-7’s spread curves. Lately, sovereign wealth funds have targeted the 10-year part of the curve. We expect demand for 7-10 year paper to be resilient, while the flatter curve has taken the value out of the long end.

**IFI strategy**
We favor the 7-10 point on the US IG and EM credit yield curve.

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Tony Wong, Head of Global Research, Joe Portera, CIO High Yield and Multi-Sector Credit, Michael Hyman, CIO Global Investment Grade and Emerging Markets, Mario Clemente, Head of Structured Investments
Global credit strategy
EM opportunity knocks – what to make of the recent market volatility

Following two consecutive years of double-digit returns in 2016 and 2017, emerging market (EM) debt has had a rocky ride so far in 2018. But we believe the proximate cause for the recent volatility has been a tightening in US financial conditions, not a deterioration in overall EM fundamentals. Therefore, we believe this EM correction has created the largest divergence between fundamentals and valuations seen in many years, and offers a compelling opportunity to add exposure to EM in local currency debt.

The US dollar has risen sharply
In February and March, a sharp rise in US dollar LIBOR and in the spread between LIBOR and the Overnight Indexed Swap (OIS) rate challenged valuations in core credit markets, triggering a cascading valuation adjustment across credit markets that included EM. EM local markets remained insulated as the US dollar remained weaker year to date. We are now seeing a rise in US real yields with the 10-year Treasury exceeding 3%, catalyzing a sharp rebound in the US dollar.

Figure 1: EM yields have recently risen along with US dollar LIBOR

Divergence in growth and rate differentials favoring the US – primarily between the US and eurozone – likely triggered this most recent rebound in the US dollar and has been consistent with a rise in US real rates. The US dollar rebound has been particularly dramatic given what appear to be historically large speculative short positions that are in the process of being unwound. The complement to this unwind has been the selling of EM currencies. This has led to a marked depreciation of these currencies and an erasing of US dollar-based gains for the EM local debt index this year. EM credit has followed suit in sympathy, with yields and spreads widening. Only now are we seeing signs of the market recovering.

In particular, we have witnessed sharp depreciation in the Argentine peso (ARS) and Turkish lira (TRY) this month in the midst of the broader US dollar rebound. Both countries’ central banks have recently hiked rates in an effort to stabilize their currencies. Argentina had increased rates by a total 1,275 basis points through early May, to 40%, but currency depreciation continued, leading policymakers to approach the International Monetary Fund (IMF) for financial support. Meanwhile, the market is anticipating stronger action by Turkey to stabilize the lira as we approach the June 24 snap elections – yet to no avail at this point.

Why the EM volatility?
Argentina and Turkey are running large external deficits that require financing, and they are perceived by the market as the most vulnerable among EM based on their current account deficits and lack of sufficient reserves to cover their planned external funding needs. Looking at their external coverage ratios (Figure 2), both countries are clearly reliant on external funding and, as such, the hint of tighter financial conditions (via a stronger US dollar) has exacerbated this sentiment. As a result, this has raised investor concern over these two countries in particular – as well as contagion implications for EM as a whole.
Figure 2: Concerns over external funding led to volatility in ARS and TRY

EM external coverage ratio versus USD/EM moves

Source: Invesco, Macrobond, Bloomberg, L.P. Data from May 2018. External coverage ratio is calculated as: Liquid FX reserves / (Current account 2018 - FX amortizations 2018 - 25% of Cumulative 5-year portfolio inflows) and is a more accurate gauge of external funding needs than the current account balance. ARS=Argentine peso, BRL=Brazilian real, CLP=Chilean peso, CNY=Chinese yuan (renminbi), COP=Colombian peso, CZK=Czech koruna, HUF=Hungarian forint, INR=Indian rupee, IDR=Indonesian rupiah, MYR=Malaysian ringgit, MXN=Mexican peso, PEN=Peruvian sol, PHP=Philippine peso, PLN=Polish zloty, RON=Romanian leu, RUB=Russian ruble, ZAR=South African rand, THB=Thai baht and TRY=Turkish lira.

Broader market implications

What does this mean for the broader market? We believe that current EM country fundamentals suggest the moves in ARS and TRY should not lead to broader EM contagion – absent a sharp and sustained tightening in global financial conditions (which is not our base case). Overall, EM growth and macro momentum have continued to improve (Figure 3), so we do not view the market action in recent weeks as a sign of macro deterioration. Differentials between EM and developed market growth are an important driver of capital flows and EM debt returns, and we believe the improved EM cyclical growth dynamics may prove favorable for EM over the medium term in spite of the higher cost of US dollar funding. In addition, EM inflation has moderated to an extent not seen in recent memory, and EM balance of payments have improved in aggregate with a decline in current account deficits and net accumulation of foreign exchange reserves.

Figure 3: EM growth momentum has improved over the past year

EM macro momentum versus JP Morgan Emerging Markets Bond Index Global Diversified (EMBI-GB) spread

Source: Invesco, IIF, Bloomberg, L.P. Data from Feb. 2012, to May 2018. EM growth momentum is constructed by extracting the common trend of 41 macroeconomic indicators that have a high correlation with EM GDP growth.
Global credit strategy (continued)

A compelling opportunity?
As a result, we believe the recent EM correction has created the largest divergence in underlying fundamentals relative to valuations seen in many years. In our view, this creates a compelling opportunity to add exposure to EM in local currency debt (where we see favorable return prospects in the coming years) and sovereign credit, given the recent improvement in underlying valuations.

Even in specific countries, such as Argentina and Turkey, that have been punished for perceived policy mismanagement, we believe the market may be setting up for a decisive turnaround. Absent a persistently stronger dollar, the external vulnerabilities of these countries should not result in a liquidity event. Argentina is now on its way to making necessary macro-related adjustments to rebalance its economy under the auspices of an IMF program, and although deal risk is a factor that could lead to volatility in the coming weeks, so far authorities are providing assuring signals. We have not seen a resolute response yet in Turkey as the market also grapples with the post-electoral policy environment, but the re-pricing of risk in Turkish assets has been considerable.

Key takeaway
Recent developments remind the markets of the challenges faced by some economies in an environment of tighter US dollar funding conditions, and how active management can play a role in navigating the trouble spots. For now, we do not see a sustained deterioration in global financial conditions given our view of contained core-market yields and the dollar. The scope for a cyclical upturn in EM growth, driven by domestic demand, further anchors our favorable medium-term assessment for EM assets. We believe this recent bout of volatility has opened up a compelling opportunity to add to EM exposure.

Rashique Rahman, Head of Emerging Markets, Sean Newman, Senior Portfolio Manager, Craig Altholz, Client Portfolio Manager

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1 Source: JP Morgan Emerging Markets Bond Index Global Diversified
3 The EM local debt index is the JP Morgan Global Bond Index - Emerging Markets Global Diversified.
We speak with members of the Stable Value Team about their unique strategy and the important things they think about when seeking to meet investment objectives and client needs.

Q: Can you describe “stable value” for those who are not familiar with this strategy?
George: Stable value is an investment strategy that seeks to provide principal preservation similar to money market funds but investment returns in line with intermediate bond funds. It is currently utilized in certain defined contribution plans in the US like 401(k)s and selected education savings programs like 529 plans. The strategy combines an actively managed total return fixed income portfolio with contracts issued by insurance companies or banks (commonly referred to as “wrap contracts”). These contracts allow the fund to smooth gains and losses of the underlying fixed income portfolio and ensure an investment return floor of 0.00%, under normal plan circumstances. Through this combination, the strategy seeks to achieve higher returns compared to money market funds while experiencing lower return volatility compared to traditional fixed income portfolios.

Q: What are the important things you think about?
Jennifer: We focus on the factors that impact our ability to achieve three main objectives: preservation of principal, liquidity for investor withdrawals and attractive yields that track the path of market interest rates. To ensure that our portfolios deliver on these objectives, we are mindful of the following considerations:

- **Investment strategy** – Invesco builds portfolios that balance principal preservation and liquidity needs with an attractive return to investors. We do this by focusing on high quality investments, but allow fixed income managers to diversify investments across fixed income sectors and the investment grade spectrum to add value for investors.

- **Plan design and investor characteristics** – For stable value portfolios, cash flows into and out of the fund can impact returns. Because of this, it is important to understand how each plan is designed and characteristics of the underlying investors as these items will impact the cash flow experience of the fund.

- **Contract terms** – Invesco has a highly experienced contract team that negotiates contract terms to minimize risks to investors. The team works to achieve consistency of terms across contracts and incorporate provisions that plan sponsors can understand and monitor.

Q: What are the main tenets of your investment process?
Jennifer: We have four main tenets:

- **Diversification** – Due to the focus on principal preservation, we build in multiple levels of diversification including sector, issuer, security, and credit quality. We also offer diversification at the fixed income manager level through relationships with a universe of fixed income “subadvisors” that employ multiple investment management styles.

- **Balanced risk** – We recognize that stable value investments play a unique role in defined contribution plans where participants seek principal preservation, but are also looking for additional yield as they work towards their retirement goals. Invesco balances these objectives by carefully constructing investment guidelines that allow for a range of fixed income investments that offer attractive yields while ensuring principal preservation.

- **Customization** – We rarely run across two defined contribution plans with the same demographics, plan design, and plan sponsor preferences, so we have designed systems and an investment management approach that embrace customization. For example, if a plan sponsor prefers a specific group of subadvisors in their stable value portfolio, Invesco can still provide transparent reporting on underlying fixed income holdings and monitor compliance on a daily basis, thereby meeting their customization needs without sacrificing transparency and risk control.

- **Active management** – Active management allows us to quickly adjust portfolios to reduce risk or enhance returns in response to changing market conditions, plan sponsor preferences or evolving plan or/investor characteristics. Invesco uses a “building block” methodology, meaning we segment the portfolio into short duration, intermediate duration and core strategies. Each strategy is managed to a unique fixed income benchmark, defining a duration target and sector allocation. This strategy provides liquidity, diversification and flexibility to adjust the strategy and duration target by reallocating between the segments or by adjusting the fixed income benchmark.
Q: Can you give some examples of the strengths of the stable value team?  
George: Invesco has managed stable value since 1985 and has developed a robust set of strengths that we believe benefit our stable value investors:

- **Resources** – Invesco offers a depth of resources and experience across all functions including client service, stable value portfolio management, contract negotiation and management, and fixed income research.

- **Compliance and systems** – Stable value portfolios have a unique combination of fixed income investments and wrap contracts. This offers a complex challenge for traditional fixed income systems. Invesco invests in systems that ensure plan sponsors and participants receive the level of transparency they require whether assets are managed by Invesco or externally subadvised.

- **Cost effective multi-manager platform** – Invesco has utilized external subadvisors since the early 1990s. Because Invesco integrates manager diversification into our investment strategy, our clients experience the benefit of Invesco's combined assets under management with each subadvisor, which minimizes costs for our clients.

- **Innovation** – Our tenured stable value team is known for offering innovative product solutions. The team was first to implement a large-scale, multi-manager investment solution, first to offer efficiencies through collective fixed income funds and first to implement a segmented portfolio structure to meet specific stable value objectives (short, intermediate and core strategies).

- **Industry leadership** – Invesco has an active presence in leading stable value initiatives and has maintained a board seat on the Stable Value Investment Association (SVIA) for the last two decades.

Q: How do you see stable value evolving in the future?  
Jennifer: Stable value has evolved over the years and, going forward, I foresee further developments:

- **Meeting the needs of savings plans** – Recent trends in the industry include target date options and lifetime income solutions. Stable value can be a valuable component of these options, and Invesco is working to communicate the added value that our asset class can provide while still meeting the liquidity and unique needs of these options.

- **Underlying investments** – Invesco continues to evaluate new options for underlying investments that offer advantageous yield, liquidity, or performance benefits. As new investment products come to the market and risk tolerance evolves, we would expect to see some evolution in underlying fixed income portfolios, as long as they meet the principal preservation objective and are within client investment guidelines.

- **New markets** – Even within some defined contribution plans such as 403(b) plans (US retirement benefit plans offered to non-profit and educational institutions), we do not see the level of diversification and transparency that plan sponsors seek. In addition, there are markets such as Health Savings Accounts (HSAs) where stable value is not offered. Invesco is continuing to create innovative solutions that expand the scope for the use of stable value so that more investors are able to experience its principal preservation and investment return benefits.

Please read the Investment risk section at the end of this publication.
## Fixed income market monitor

<table>
<thead>
<tr>
<th></th>
<th>Coupon (%)</th>
<th>Yield to worst (%)</th>
<th>1 month change in YT</th>
<th>1 month change in spread</th>
<th>Option-adjusted spread</th>
<th>10 year range</th>
<th>Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Current</td>
<td>min</td>
<td>max</td>
<td>1 mth (%)</td>
<td>3 mth (%)</td>
</tr>
<tr>
<td>Global Aggregate (USD hedged)</td>
<td>2.65</td>
<td>1.94</td>
<td>0.11</td>
<td>37</td>
<td>0</td>
<td>23</td>
<td>156</td>
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<tr>
<td>U.S. Aggregate</td>
<td>3.09</td>
<td>3.29</td>
<td>0.17</td>
<td>40</td>
<td>-1</td>
<td>32</td>
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<td>U.S. Mortgage-backed</td>
<td>3.53</td>
<td>3.44</td>
<td>0.14</td>
<td>28</td>
<td>-1</td>
<td>16</td>
<td>181</td>
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<tr>
<td>Global Inv Grade Corporate (USD hedged)</td>
<td>3.47</td>
<td>3.03</td>
<td>0.12</td>
<td>105</td>
<td>-2</td>
<td>55</td>
<td>515</td>
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<tr>
<td>U.S. Investment Grade Corporate</td>
<td>3.95</td>
<td>3.92</td>
<td>0.15</td>
<td>108</td>
<td>-2</td>
<td>76</td>
<td>618</td>
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<tr>
<td>Emerging Market USD Sovereign</td>
<td>n/a</td>
<td>6.05</td>
<td>0.28</td>
<td>313</td>
<td>9</td>
<td>157</td>
<td>906</td>
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<tr>
<td>Emerging Market Corporate</td>
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<td>245</td>
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<td>Global High Yld Corporate (USD hedged)</td>
<td>5.93</td>
<td>5.62</td>
<td>0.06</td>
<td>337</td>
<td>-12</td>
<td>231</td>
<td>1845</td>
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<tr>
<td>U.S. High Yld Corporate</td>
<td>6.34</td>
<td>6.26</td>
<td>0.08</td>
<td>338</td>
<td>-17</td>
<td>233</td>
<td>1971</td>
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<tr>
<td>Bank Loans</td>
<td>5.57</td>
<td>5.54</td>
<td>0.11</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>Municipal Bond</td>
<td>4.70</td>
<td>2.82</td>
<td>0.14</td>
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<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>High Yield Municipal Bond</td>
<td>5.14</td>
<td>5.04</td>
<td>-0.22</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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</tbody>
</table>

## Treasury market monitor

<table>
<thead>
<tr>
<th></th>
<th>Coupon (%)</th>
<th>Yield to worst (%)</th>
<th>1 month change in YT</th>
<th>1 mth (%)</th>
<th>3 mth (%)</th>
<th>YTD (%)</th>
<th>12 mth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2.20</td>
<td>2.74</td>
<td>0.20</td>
<td>-0.81</td>
<td>-0.63</td>
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<td>-1.07</td>
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<tr>
<td>Canada</td>
<td>2.22</td>
<td>2.08</td>
<td>0.13</td>
<td>-0.86</td>
<td>0.38</td>
<td>-0.45</td>
<td>-2.02</td>
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<tr>
<td>United Kingdom</td>
<td>3.40</td>
<td>1.40</td>
<td>0.05</td>
<td>-1.04</td>
<td>1.27</td>
<td>-0.97</td>
<td>-0.82</td>
</tr>
<tr>
<td>Germany</td>
<td>1.91</td>
<td>0.16</td>
<td>0.06</td>
<td>-0.47</td>
<td>0.83</td>
<td>-0.24</td>
<td>-0.94</td>
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<tr>
<td>Italy</td>
<td>3.24</td>
<td>1.08</td>
<td>0.01</td>
<td>-0.11</td>
<td>2.17</td>
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<tr>
<td>Japan</td>
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<td>0.12</td>
<td>0.01</td>
<td>-0.07</td>
<td>0.50</td>
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<td>0.40</td>
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<tr>
<td>China</td>
<td>3.51</td>
<td>3.49</td>
<td>-0.23</td>
<td>1.41</td>
<td>3.36</td>
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<tr>
<td>EM Local Currency Governments</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>-0.11</td>
<td>1.28</td>
<td>2.21</td>
<td>6.82</td>
</tr>
</tbody>
</table>

## FX market monitor

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>10 year range</th>
<th>Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
<td>max</td>
<td>1 mth (%)</td>
</tr>
<tr>
<td>EURUSD</td>
<td>1.20</td>
<td>1.05</td>
<td>1.60</td>
</tr>
<tr>
<td>USDJPY</td>
<td>109.86</td>
<td>75.82</td>
<td>124.77</td>
</tr>
<tr>
<td>GBPUSD</td>
<td>1.36</td>
<td>1.22</td>
<td>2.11</td>
</tr>
<tr>
<td>USDCHF</td>
<td>6.33</td>
<td>6.04</td>
<td>8.28</td>
</tr>
<tr>
<td>AUDUSD</td>
<td>0.75</td>
<td>0.60</td>
<td>1.10</td>
</tr>
<tr>
<td>CADUSD</td>
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<td>0.72</td>
<td>1.09</td>
</tr>
<tr>
<td>EURJPY²</td>
<td>131.79</td>
<td>94.31</td>
<td>169.49</td>
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<tr>
<td>EURGBP²</td>
<td>0.88</td>
<td>0.70</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Sources: Bloomberg Barclays, J.P. Morgan, of as of April 30, 2018. Credit Suisse Leverage Loan data as of April 30, 2018. Within the Treasury Monitor, United States is represented by Bloomberg Barclays US Treasury Index; Canada is represented by Bloomberg Barclays Global Treasury Canada Index; United Kingdom is represented by Bloomberg Barclays Sterling Gilts Index; Germany is represented by Bloomberg Barclays Global Treasury Germany Index; Italy is represented by Bloomberg Barclays Global Treasury Italy Index; Japan is represented by Bloomberg Barclays Global Treasury Japan Index; China is represented by Bloomberg Barclays China Aggregate Treasuries Index; EM Local Currency Governments is represented by J.P. Morgan GBI EM Broad Diversified Index. In the Fixed Income Monitor, Global Aggregate is represented by Bloomberg Barclays Global Aggregate (USD Hedged) Index; US Aggregate is represented by Bloomberg Barclays US Aggregate Index; US Mortgage-backed is represented by Bloomberg Barclays US Mortgaged-backed Index; Global Investment Grade Corporate is represented by Bloomberg Barclays Global Aggregate Corporate (USD Hedged) Index; U.S. Investment Grade Corporate is represented by Bloomberg Barclays Aggregate Corporate Index; Emerging Market USD Sovereign is represented by the J.P. Morgan EMBI Global Diversified Index; Emerging Market Corporate is represented by J.P. Morgan CEMBI Broad Diversified Index; Global High Yld Corporate is represented by the Bloomberg Barclays Global High Yield Corporate (US$ hedged) Index; U.S. High yield Corporate is represented by Bloomberg Barclays US Corporate High Yield Index; Bank Loans is represented by the Credit Suisse Leveraged Loan Index; Municipal Bond is represented by Bloomberg Barclays Municipal Bond Index; Yield to Worst is the lowest expected yield calculation given maturity and call features. Option Adjusted Spread (OAS) is the yield difference relative to similar maturity Treasuries that incorporates call, put, sinking fund or paydown features of a bond. Past performance cannot guarantee future results. An investment cannot be made directly in an index. Returns less than one year are cumulative.

1 Positive number represents the currency appreciated against USD, negative number represents currency depreciated against USD.
2 Positive number represents the currency appreciated against EUR, negative number represents currency depreciated against EUR.
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