Invesco Fixed Income White Paper Series
Global Investors' Summit May 2018

June 11, 2018

Over 100 investors and distribution partners gathered in London in May to discuss and debate Invesco Fixed Income's (IFI) views on global macroeconomic trends. Macro themes play an important role in IFI's investment process. Along with qualitative inputs, quantitative macroeconomic models help us project macro trends and interpret market movements based on a framework of "macro factors." We believe changes in macro factors such as growth, inflation and financial conditions drive much of market performance. Understanding macro factors helps us understand market conditions and price action across rates, currencies and credit. We believe our macro factor framework can help improve asset allocation and the risk-return profiles of portfolios. Below, we discuss some of the major developments that we believe are currently driving these three macro factors and how they influence our asset allocation decisions.

Rob Waldner, CFA
Chief Strategist,
Head of Multi-Sector
Portfolio Management

Tony Wong,
Head of Global Research and
Credit Strategy

Key macro conclusions

- We have revised up our 2018 US growth outlook due to the positive impact of fiscal stimulus under US tax reform. We expect US inflation to remain benign.
- We have observed some tightening in US financial conditions recently, driven by temporarily higher core inflation and more difficult short-dated funding conditions leading to increased interest rates and volatility. However, we expect overall financial conditions to moderate in the second half of the year.
- We continue to expect healthy eurozone growth, but expect some deceleration compared to the second half of 2017. Inflation is likely to remain muted with little potential to meet the European Central Bank's (ECB) 2% inflation target on a sustained basis over the medium term.
- We expect economic growth in China to moderate, but remain stable, as the government pursues financial regulation and economic rebalancing. Inflation is likely to remain tame.
- We expect to see greater divergence across emerging markets (EM) in 2018 in terms of economic outcomes, but view long-term conditions as generally positive for EM.
- We expect the US Federal Reserve (Fed) to continue gradually raising interest rates, but elsewhere, monetary policy should remain accommodative to neutral. We expect the ECB to maintain its quantitative easing (QE) program through the end of the year. In China, financial regulatory tightening has lessened the need for the central bank (PBoC) to raise rates, in our view, and we expect monetary policy to remain neutral in the near term, with potential cuts in the reserve requirement ratio.
- Risks to our views include fallout from geopolitical developments such as global trade tensions, Brexit negotiations and European politics and tighter financial conditions. Upward pressure on the US dollar could pose a challenge to EM external financing conditions. We are watching these developments closely, as their outcomes could significantly impact market and macro performance.

Regional macro views

US

At the November Summit, we were calling for strong 2018 growth. Our forecast for trend growth was above consensus at around 2.3%, based on expectations of strong consumption, capital expenditure and easy financial conditions, which have materialized. We upgraded our trend growth estimate at the May Summit to 2.8%, due largely to fiscal stimulus measures resulting from the December 2017 fiscal tax reform.

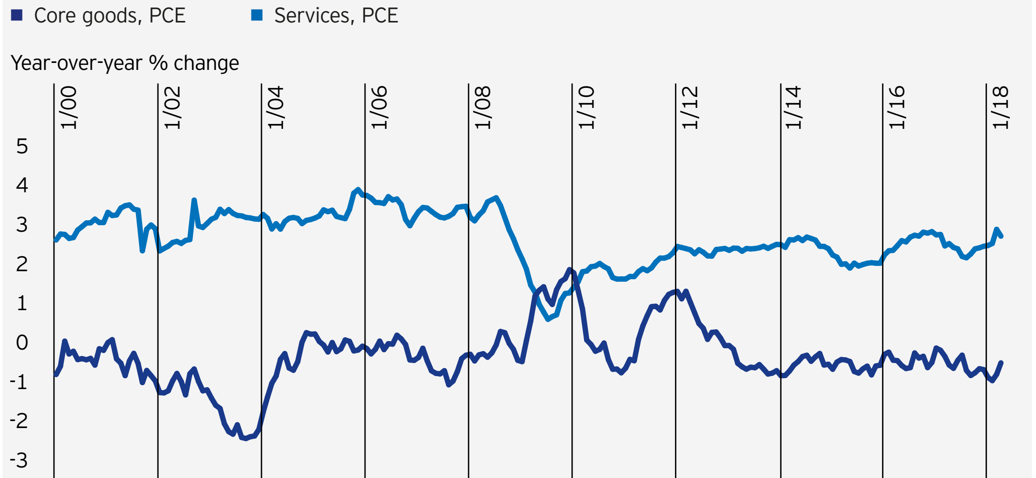
We believe the change in US tax policy has been, and will continue to be, a growth accelerant this year. Post-tax reform, greater consumption has been driven by higher incomes and we believe this will continue. At the corporate level, capital expenditure has also risen sharply this year, driven by tax reform measures that incentivize near-term capital spending. We think this trend will remain strong, although we expect it to moderate through 2019. We see a very low risk of recession in the near term.

The US inflation story is somewhat more complicated. Our 2018 core inflation forecast is in line with our November forecast of around 1.8%. However, inflation surprised to the upside in early 2018, disrupting markets and raising investor concerns over the future path of inflation and Fed policy.

We take a bottom-up approach to forecasting inflation and see little risk of inflation getting out of hand this year. Aside from the housing sector, there appears to be very little inflation pressure across various segments of the US economy. In particular, core goods inflation has been negative for some time, averaging -0.9% year-over-year so far in 2018 (Figure 1). Our bottom-up housing indicators point to slowing in the housing component later this year, which underpins our above forecast. Rising labor costs could pose an inflation risk given the current low level of unemployment below 4%.[1] However, the lack of significant growth in labor costs, or leading indicators of labor costs, points to relatively stable inflation going forward, in our view.

Figure 1: Core goods have dragged down overall inflation

■ Core goods, PCE ■ Services, PCE



Source: US Bureau of Economic Analysis, PCE is Personal Consumption Expenditures Index, data from Jan. 1, 2000 to April 1, 2018.

A more important risk to our US inflation outlook is trade friction with major trading partners, especially China and Europe. But even then, we believe a potential spike in inflation would be temporary, as goods prices undergo a one-time adjustment. Longer-term, trade friction could weigh on consumer confidence and consumer demand, ultimately dampening the inflationary impact of a "trade war."

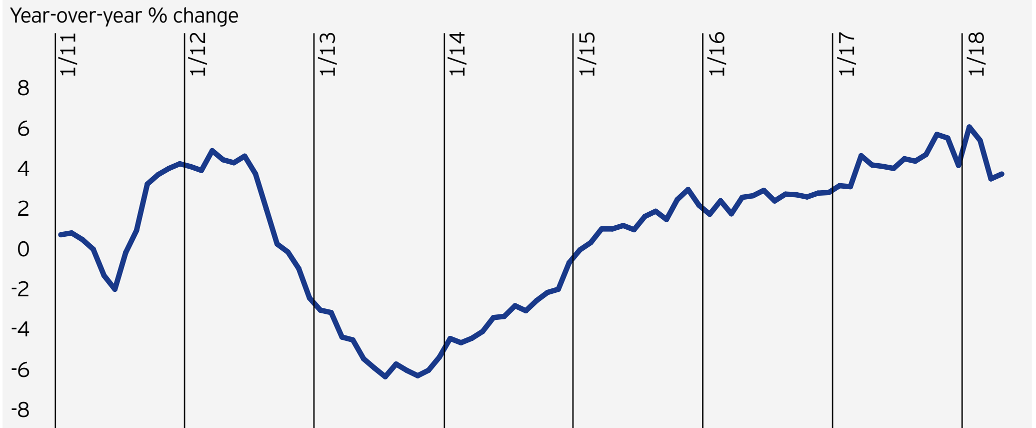
A critical factor in our outlook for 2018 economic and market performance is financial conditions. Temporarily higher core inflation and more difficult short-dated funding conditions driven by corporate tax reform were catalysts for increased volatility among key interest rates earlier this year. Ten-year US Treasury yields rose sharply – above 3% for the first time since 2014 - and the LIBOR-OIS spread (difference between the London Interbank Offered Rate and the Overnight Indexed Swap Rate) gapped.[2]

These market movements created an overall tightening in financial conditions, in our view. Our macro factor framework suggests that financial conditions tightening has led to the poor performance of risky assets such as stocks and credit in the past few months.[3] However, we believe that core inflation is likely to decrease from current levels and growth is likely to stay strong, without breaching our current estimate of around 2.8% for 2018. This means the pace of Fed rate hikes is likely to remain gradual. We have raised our expected number of 2018 rate hikes from two to three versus the last Summit, in line with market expectations. However, we expect overall financial conditions to moderate as inflation cools in the second half of the year. Moderating short-term interest rates should support non-US currencies versus the US dollar and overall easier financial conditions should help support risky assets in the second half of the year.

Europe

We forecast above-trend 2018 growth of 2.0%-2.4% at the November Summit, based on solid consumption, services activity and employment. We continue to expect relatively healthy eurozone growth in 2018 of around 2.2%-2.3% on a trend basis. However, after a strong 2017 second half, we expect some deceleration – in other words, we do not expect to see a repeat of last year's momentum driven by ECB QE and negative interest rates. That being said, we foresee continued easy monetary policy and ample room for continued positive growth in the coming years. A key risk to our outlook is a downturn in bank credit that has recently emerged across Europe. Continued declining trends in money supply and bank lending could threaten the sustainability of the current recovery.

Figure 2: Loan growth to euro area residents slumped



Source: ECB, Aggregated Balance Sheet of Monetary and Financial Institutions Sector, Monetary and Financial Institutions Excluding European System of Central Banks, Outstanding amounts at the end of the period, in euros [c.o.p. 1 year], data as of Jan. 1, 2011 to April 1, 2018.

Over the longer term, political tensions in both core and peripheral European countries means limited upside to growth, in our view, as structural impediments to European growth are not likely to be addressed soon. However, the runway for further recovery appears long, as the ECB is expected to remain accommodative. We expect QE to stay in place through the end of the year and negative interest rates to persist through 2019.

Core eurozone inflation remains benign at around 1%, despite above-trend growth and low unemployment. Headline inflation could pick up on the back of higher oil prices, but wage growth remains stubbornly low across the euro area. Without the prospect of demand-pull inflation, we are unlikely to see a meaningful increase in core inflation. We foresee little potential to meet the ECB's 2% inflation target on a sustained basis over the medium term.

Brexit will likely remain a major challenge for the UK economy and Germany will not likely escape damage to its economic performance from a hard Brexit. Given Germany's exposure to trade, developments surrounding Brexit and higher US tariffs could generate significant headwinds for its economy in 2019.

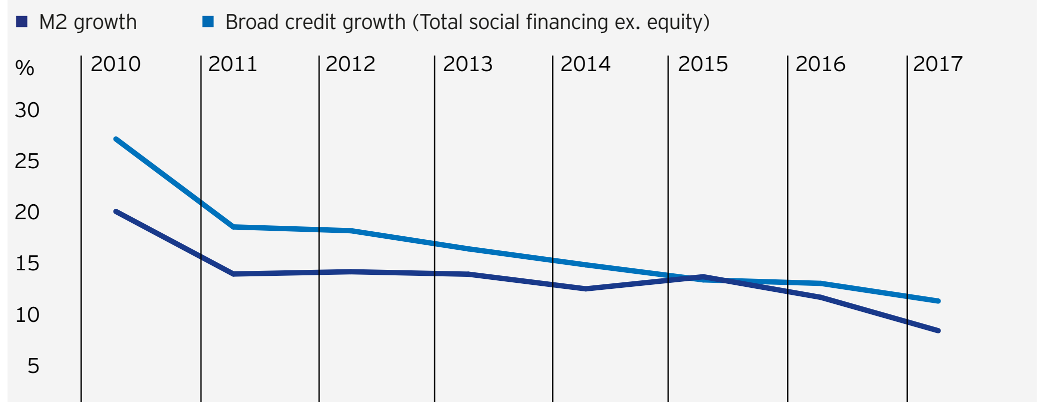
A market-unfriendly outcome in Italian politics poses a risk of contagion, in our view. The risk of Italy potentially breaking with the euro against a backdrop of a heavy debt burden means continued market volatility in the coming months, in our view, as political and economic uncertainty remain elevated.

China

At our last summit, we predicted that China would continue its focus on financial deleveraging and regulatory tightening, which would lead to slower credit growth and, ultimately, more moderate economic growth. Since November, we have seen evidence in support of these assertions and maintain that, compared to the past few years, China's macro policies will feature tighter regulation, looser liquidity, and fiscal consolidation, and as a result economic growth will continue to moderate to the low 6% range in 2018.

Since the banking sector regulator began addressing the shadow banking system in 2017, credit growth has slowed. M2 growth has already dropped to single digits, and going forward we expect total social financing (TSF), a broad measure of credit growth, to slow (Figure 3). Additionally, these tighter financial regulations and, more recently, new asset management rules, have not only affected the growth of credit, but the composition of total credit as off-balance sheet credit is reduced.

Figure 3: Chinese credit growth has slowed



Source: CEIC, Invesco, data from Dec. 31, 2010 to Dec. 31, 2017. M2 is a broad measure of money supply and includes cash, demand deposits, time deposits and money market funds held by non-deposit taking institutions, in China's case. Total social financing (TSF) is a broad measure of aggregate financing in China.

We continue to expect 2018 growth to be somewhat below consensus at the low 6% level. This is based on our expectation of further regulatory measures aimed at shadow banking and local government debt, state-owned enterprise deleveraging, and tighter policies related to the property market and retail loans. To be sure, resilience in private sector consumption and a recovery in exports should continue to provide a growth buffer to China's economy, although potential trade friction with the US has injected uncertainty into future export performance.

Despite the previous calls from the market for the PBoC to follow the US rate hiking cycle, we believe recent regulatory tightening measures, especially those related to banks' interbank activities and non-bank financial institutions, and the increase in real lending rates decreases the need for the PBoC to use short-term interest rates or "liquidity squeezes" to force participants to reduce financial leverage. China's mostly closed capital account and US dollar softness have also provided room for the PBoC to act relatively independently without being tied to the US rate hiking cycle. This has led us to be more bullish than the market on Chinese onshore rates, and we see room for Chinese bond yields to trend down.

Additionally, inflation in China has remained benign. Our base case is for a moderate rebound in consumer price inflation to the mid-2% level, which is below the central bank's 3% "alert level" and should enable it, again, to leave benchmark interest rates unchanged.

In April, the PBoC reduced the reserve requirement ratio (RRR) to 16% of total deposits[4], and we believe it will continue to make RRR cuts over the next two to three years, eventually reaching a level of around 6%-8%. This could result in a significant increase in liquidity being released into the banking system.

The performance of the renminbi will likely continue to be driven by US dollar performance relative to the Chinese currency basket. With US-China trade friction reduced for now, policy uncertainty related to the US dollar renminbi exchange rate has been eased. European data releases and market risk sentiment are likely to have more influence on US dollar strength going forward, and thus the performance of the renminbi. In the near term, we continue to expect the pair to trade in the 6.3-6.5 range.

Emerging markets

We believe we are in store for more divergence across emerging markets (EM) than we have seen recently, in both growth and inflation, pointing to opportunities for discrimination in country and asset selection and replacing the "buy" or "sell the market" environment of recent years. We also expect less divergence within developed markets over time, which we believe should eventually lead to a weaker dollar and easier global financial conditions, in turn supporting EM assets.

China has decelerated to some degree due to tighter macroprudential measures and economic rebalancing, partly offset by monetary policy easing. India is recovering quite strongly from previous domestic policy shocks imposed by the Modi government, such as demonetization, so strong uptrends lie ahead in India, in our view. Brazil and Russia have disappointed relative to our growth estimates, but even so, their economies appear to be recovering from multi-year recessions. Argentina and Turkey face significant policy and economic uncertainty, and are vulnerable to external shocks, in our view.

On the other hand, we expect to see less divergence in the developed world than we have had in 2018. This year's divergence stands in stark contrast to the synchronized growth cycle of 2017, but is transitory in our view, due mainly to weaker growth and inflation

than expected in Europe and Japan, rather than stronger than expected performance in the US, despite tax reform and fiscal stimulus. Europe's weakness may well imply a more gradual ECB QE exit and rate hikes. But as Europe returns to trend growth, monetary policy would eventually be normalized. In turn, this should limit and eventually reverse the dollar strength and tightening in global financial conditions that caused the EM correction, in our view.

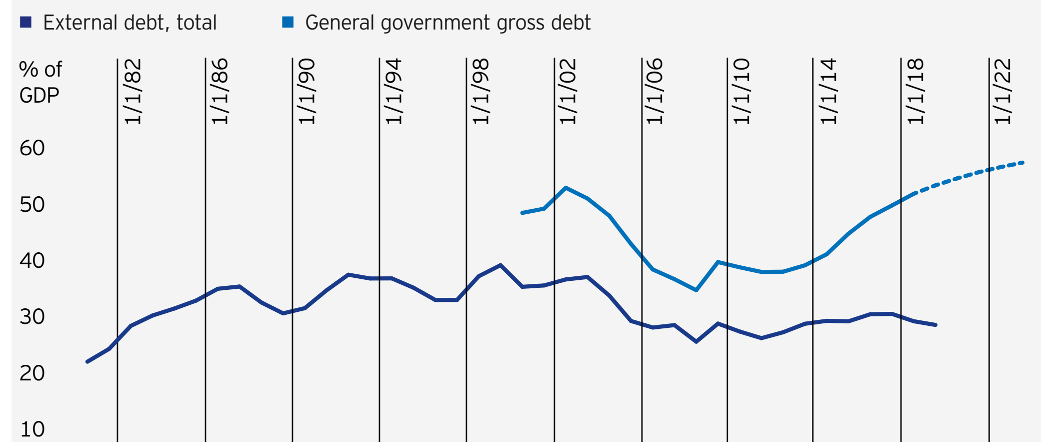
We also continue to expect long-term synchronization in trend growth across developed markets, led by a combination of declining real potential growth plus difficulty in achieving inflation targets. This is partly due to structural and demographic hurdles, such as meager productivity gains and aging. This developed market backdrop should be supportive over the long haul for EM, which tend to have better demographics, better productivity catch-up prospects, and should grow at a faster pace, beyond the current cyclical correction. There are major risks around this central view, the most important being severe and sustained dollar strength or significantly higher global interest rates. The recent strength in the US dollar, if sustained, could impose another current account adjustment on EM. Episodes of dollar strength often occur when policy interest rates or bond yields rise in the US relative to other major economies.

Would a major external financing shock – such as a sharp rise in the US dollar – affect EM as a whole or would the impact be country-specific and idiosyncratic? We would expect idiosyncratic rather than market-wide pressures due to a surging dollar, because EM as a whole have already undergone significant external adjustment – with the exception of a few countries.

A significant amount of EM debt is owed to foreign investors, whether explicitly denominated in dollars or in domestic currency but owed to dollar-based investors. Debt service issues might arise as a consequence of difficulties in refinancing that debt. But we believe such potential difficulties would be country-specific. In general, external debt has not been rising substantially across EM, but fiscal accounts have deteriorated, and the domestic debt burden has grown.

This combination of current account adjustments, stable/declining external debt but rising domestic debt suggests that EM as a whole is more exposed to an interest rate shock than to a dollar shock. That said, we believe the Fed's gradual, data-dependent rate hiking and generally auto-pilot balance sheet tapering imply limited risks of a global interest rate shock – so long as inflation does not surprise to the upside.

Figure 4: Public debt is rising – and it's increasingly domestic



Source: Emerging & Developing Economies, IMF WEO, dashed line represents estimate, percent of GDP, data from Jan. 1, 1980 to Jan. 1, 2018, estimates thereafter.

We would argue that Argentina and Turkey are the most exposed to these types of shocks, based on their constrained foreign reserve positions, economic imbalances and policy uncertainty. If we are entering a more volatile market environment in which episodes of divergence or shocks occur, even if not sustained, we believe these two countries, plus a few others, are likely to remain under pressure or suffer repeated market shocks that would likely affect their growth prospects. These two countries stand out for their shared reliance on external financing.

Although we are likely to be in a more variegated, volatile global environment, we believe it should ultimately result in greater selectivity, rather than a generalized outflow from the EM asset class. If Europe and Japan's economies continue to surprise to the downside or US fiscal policy boosts inflation, causing the Fed to become more aggressive, we could see a sharp US dollar rally and beta dominance would likely reassert itself. Flare-ups in geopolitical risks or trade tensions would also likely resurrect beta dominance.

In any such systematic, global downside scenario, EM as an asset class would be very heavily exposed, as countries that have had the most growth and investment inflow benefits from globalization over time, and from cyclical global economic recovery, low global inflation and easy monetary policy.

However, that is not our base case. We expect the current divergence within developed markets to be limited in extent and in duration, which would point to renewed dollar weakness and easing financial conditions. Overall, we are positive on the outlook for EM growth and inflation, which predisposes us to favor local markets, although we expect some upside in credit as well.

1 US Department of Labor, May 4, 2018.
2 Bloomberg L.P., data from Dec. 31, 2017 to April 6, 2018 (LIBOR-OIS spread), data from Dec. 30, 2011 to May 29, 2018 (10-year US Treasury yield).
3 Bloomberg L.P., data from Jan. 31, 2018 to April 30, 2018, Standard and Poor's 500 Index and the Bloomberg Barclays US Corporate Investment Grade Index.
4 Source: The People's Bank of China, April 17, 2018.

IFI macro views and 2018 outlook

	US	Eurozone	Japan	China
GDP trend growth	Expect 2.8% growth in 2018. Growth should be broadly supported by consumption, capital expenditure and gradual Fed tightening.	Expect growth to moderate to around 2.2%-2.3% in 2018 following an exceptionally strong second-half of 2017.	Expect 1% growth in 2018. Exports should be the primary driver, however, consumption should also make a meaningful contribution.	Expect annual growth to be in the low 6% range, driven by softening property markets, further tightening of financial regulations and slowing credit growth.
Inflation	Core inflation expected to stabilize at around 1.8%.	Expect core inflation to steady around 1.0% and headline inflation to pick up mostly on the back of higher oil prices.	Inflation expected to remain positive in 2018 at around 0.8%. A tighter labor market and upward pressure on wages will likely be the primary drivers.	Expect 2.0%-2.5% inflation, below the central bank's 3% alert level. Unexpected changes in oil prices and food supply dynamics could pose upside risk.
Monetary policy	Fed likely to hike rates in June and September and will grow concerned about inflation in second half.	We think ECB asset purchases will likely extend into December 2018 and expect the tapering decision to be announced in July. No rate hike before June 2019.	Yield curve control has been a success and lessens the need for further easing anytime soon, in our view.	Monetary policy is expected to be neutral including regulatory tightening measures coupled with potential reserve ratio cuts.
Fiscal policy	Fiscal policy will be additive to growth from both a consumer and capital expenditures perspective.	Expect little change in fiscal policy; slightly more expansionary overall.	Expansionary.	Tightening fiscal policy, with lower official deficit target and regulatory tightening on local government related entities' financing.
Government yields	10-year US Treasury yields are likely to remain in a 2.75%-3.10% range. Volatility is likely to persist. Tapering of reinvestments and supply will keep significant rallies in yields limited, barring a risk-off shock.	Expect 10-year bund yields of 0.8%-1% at year-end 2018.	Expect the BoJ to keep Japanese 10-year government bond yields contained "around zero."	Expect 10-year Chinese government bond yields to range between 3.0%-3.5%.
Currency	Converging global nominal growth rates are likely to drive the US dollar weaker over the longer term.	We expect the euro to retrace recent weakness and trade around 1.20-1.25 by year end.	Expect the yen to trade between Y105-115 per US dollar for the remainder of this year. Yen moves will most likely be driven by developments external to Japan.	Expect the renminbi to trade in a range of 6.30-6.50. Downside risks could rise if the euro trades sharply lower against the US dollar due to headlines on European politics

Important information

All information is sourced from Invesco and is in USD, unless otherwise stated.

This document has been prepared only for those persons to whom Invesco has provided it for informational purposes only. This document is not an offering of a financial product and is not intended for and should not be distributed to retail clients who are resident in jurisdiction where its distribution is not authorized or is unlawful. Circulation, disclosure, or dissemination of all or any part of this document to any person without the consent of Invesco is prohibited.

This document may contain statements that are not purely historical in nature but are "forward-looking statements", which are based on certain assumptions of future events. Forward-looking statements are based on information available on the date hereof, and Invesco does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

The information in this document has been prepared without taking into account any investor's investment objectives, financial situation or particular needs. Before acting on the information the investor should consider its appropriateness having regard to their investment objectives, financial situation and needs.

You should note that this information:

- may contain references to amounts which are not in local currencies;
- may contain financial information which is not prepared in accordance with the laws or practices of your country of residence;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address local tax issues.

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. Investment involves risk. Please review all financial material carefully before investing. The opinions expressed are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

The distribution and offering of this document in certain jurisdictions may be restricted by law. Persons into whose possession this marketing material may come are required to inform themselves about and to comply with any relevant restrictions. This does not constitute an offer or solicitation by anyone in any jurisdiction in which such an offer is not authorised or to any person to whom it is unlawful to make such an offer or solicitation.