



2018 Investment Outlook

This document is intended only for Professional Clients and Financial Advisers in Continental Europe (as defined under Important Information), Qualified Investors in Switzerland and Professional Clients in Dubai, Ireland, the Isle of Man, Jersey, Guernsey and the UK. It is not intended for and should not be distributed to, or relied upon, by the public or retail investors.

“We are dedicated to helping clients achieve their investment objectives.”



Martin L. Flanagan
President and CEO,
Invesco Ltd.

The surging markets of the past year have taken place against a backdrop of macro developments whose long-term impact on the world economy has yet to be realized: uncertainty regarding the UK’s withdrawal from the European Union, potential tax reform in the US, North Korea’s nuclear weapons testing, continued oil price volatility and the outcome of key elections in Germany, France, Iran and other countries.

With this as context, the year ahead promises to be interesting and challenging as well. In this dynamic environment, we have a strong view that clients are best served by portfolios that combine the advantages of active, passive and alternative capabilities.

At Invesco, we’ve built our firm over many years with a single focus: to help clients achieve their investment objectives in a variety of markets. We provide a comprehensive range of investment capabilities, delivered through a diverse set of investment vehicles. We draw on this comprehensive range of capabilities to provide customized solutions designed to deliver key outcomes aligned to client needs, which are our most important benchmark.

Our experienced investment teams are located in locations all over the globe, which we believe is a real strength of the firm. Maintaining a presence on the ground in key cities enables our investment teams to stay close to developments that impact the markets and the companies in which they invest.

An important part of achieving your investment objectives depends on keeping ahead of the dynamics that drive movements in the global markets. Working with our investment teams, we’ve developed this 2018 outlook to provide insights that can help you plan for the future and make decisions about your investments.

We hope you find this information helpful. As always, we remain focused on helping clients achieve their investment objectives – wherever the markets take us.

All signs point towards a sustained global expansion



John Greenwood
Chief Economist, Invesco Ltd

We approach the new year with confidence that the world's leading economies will continue to display strength and resilience. The US economy is likely to lead from the front, aided by a gathering upturn in the eurozone and the start of a renewed upswing in global trade. The likely expansion among developed economies should also have a positive impact on the export-oriented, manufacturing economies of East Asia as well as commodity producers in other emerging nations.

securities, and therefore the US Treasury and government agencies will need to increase auction sizes accordingly. Selling an additional \$50 billion of debt securities per month risks raising long-term interest rates, tightening financial conditions, and squeezing bank credit and money growth. In my view, the Fed will need to proceed with caution.

There is good reason to expect the current expansion in the US has further to go and could actually become the longest business cycle expansion in US financial history. This would imply a continuous upswing that exceeds the record trough-to-peak expansion of 120 months between March 1991 and March 2001 (as measured by the National Bureau of Economic Research). The only real threat to this prospect is the possibility that the Fed and other central banks could make a mistake and tighten too much during monetary policy normalisation. If they overdo the tightening, there is a real risk of a slowdown in 2018-2019 and a continuation of below-target inflation rates across many major economies. This is not my base case, but investors need to be mindful of this possibility.



The US economy is likely to lead from the front, aided by a gathering upturn in the eurozone and the start of a renewed upswing in global trade.



Key takeaways

- I believe the current US expansion has further to go and could become the longest in US history.
- Economic growth in the eurozone is gaining momentum but will face a headwind if there is a slowdown in credit creation.
- A modest increase in global trade is likely to support Asian economies, including China.

United States

A strong labour market (the unemployment rate fell to 4.2% in September - a 16-year low) and benign inflation are likely to underpin moderate real GDP growth in 2018. I expect the US economy to expand by 2.2% in real terms in 2018. For most of 2017, inflation has undershot the US Federal Reserve's (Fed) target. Fed governors and presidents have attributed this to one-off reductions in cellular phone contract prices and other exceptional events, asserting that the underperformance of inflation relative to the 2% target is "transitory." However, after several months of price weakness, the claim that these price changes are temporary is starting to lose credibility. A key moment will come in the spring of 2018, when 2017's price declines will fall out of the year-on-year comparison. My view is that the underlying problem is slow growth of money and credit. However, I expect no great harm to come from this modest degree of price weakness provided that core inflation starts to pick up again in 2018.

Against this backdrop, the Fed has continued with its policy of gradually normalising - not tightening - interest rates, and in September 2017 the central bank announced the start of a plan to shrink its balance sheet following the scheme. The "dot plot" released with the Federal Open Market Committee statement suggested another possible interest rate hike in December 2017 plus three further hikes of 0.25% in 2018. This would take the federal funds rate to a range of 2.0% to 2.25% by the end of 2018. The plan to shrink the Fed's balance sheet is intended to gain momentum in 2018. Initially, the runoff will start at \$10 billion per month during the fourth quarter of 2017, but is envisaged to rise to \$50 billion per month in the final quarter of 2018. This means that private sector investors will need to replace the Fed as a holder of these

Eurozone

Economic activity in the eurozone is at last expanding at a momentum close to its potential. This is largely a result of the asset purchase programme started by the European Central Bank (ECB) in March 2015 and the associated acceleration of the money supply (M3). To ensure that economic momentum is sustained, commercial banks need to create credit more rapidly than at present. Otherwise, when the ECB starts to taper its purchases, credit growth could weaken substantially.

Even though the economies of the single currency area may have recovered, the basis for sustained M3 growth of 5% or more in the eurozone - which I believe to be the minimum needed to ensure 2% real growth and 2% inflation after allowing for a 1% annual decline in income velocity (or the turnover of money relative to income) - is distinctly fragile. The risk, therefore, is that tapering quantitative easing purchases will lead to a renewed and damaging slowdown in M3 growth, resulting in the inflation rate declining further beneath its target of "below but close to 2%." I expect inflation to remain below its target figure for the year ahead due to inadequate M3 growth.

United Kingdom

UK economic growth picked up a little in the third quarter of 2017 after a sluggish first half, but still remains below its recent trend. However, the British economy is likely to draw support over the next 12 months by buoyant elements of

consumer and business spending. Going forward, I expect growth to hold up for two reasons. Firstly, monetary policy has been highly stimulatory, and secondly, the weaker pound has enabled the manufacturing export sector to be much more vigorous than expected. The UK labour market also appears to be in good health - the economy continues to generate good job growth, the unemployment rate is very low and the participation rate is at a record high.

However, the Bank of England raised interest rates for the first time since 2007 in early November. The Monetary Policy Committee voted 7-2 to increase rates to 0.5% from 0.25%. In addition to imported inflation, there is a danger that accelerating money and credit expansion in the UK could add locally generated inflation to rising import prices. I expect growth to settle around 1.5% until the uncertainties of the Brexit negotiations are overcome.

Japan

The Japanese economy has had a decent run lately with real GDP increasing for six consecutive quarters, the first such extended stretch of growth for over a decade. While the labour market should remain tight in 2018, low wage growth is expected to persist, providing further evidence that the Phillips curve¹ is not a dependable theory of inflation.

Despite huge qualitative and quantitative easing (QQE) by the Bank of Japan, inflation is likely to stay weak and below the central bank's 2% target, but should stay above zero. Economic

growth for 2018 should remain stable (around 1.2%) but lag the US and eurozone.

China and Emerging Asia

Both China and emerging Asia are likely to draw support from a modest increase in global trade. While this should help underpin commodity prices, I don't believe it will be enough to translate into a commodity boom next year. Since China is by far the largest emerging market and also the biggest buyer of commodities on world markets, the growth of China's imports matters immensely to numerous developed and emerging commodity exporters around the world. If China can engineer a steady domestic recovery over the next year or two, the outlook for those commodity-exporting economies will improve considerably. However, in light of the continuing moderate recovery in developed western economies, China's upswing may not be sufficiently vigorous to drive a recovery in all commodity-producing economies.



The global economy is experiencing its broadest and strongest upturn for five years and is likely to extend further, in my view.

¹ The Phillips curve states that there is an inverse relationship between inflation and unemployment. According to the Phillips curve, higher rates of inflation would imply lower rates of unemployment.

Plenty of scope for active managers to add value



Jeffrey Taylor
Head of European Equities,
Invesco Perpetual



Key takeaways

- We expect healthy domestic fundamentals to enhance the performance of European equities over the long term.
- With wide disparity in stock and sector valuations, we believe active portfolio management can add value.
- As some sectors are substantially overbought, the case for a period of marked sector rotation is strong.

Europe is a rich, highly developed part of the world which is home to a vast range of companies. However, on occasion it still seems to struggle to attract attention from serious investors around the world. There's always a handy excuse: "Why bother when it's only a play on more interesting parts of the world?" or "There's never any earnings growth, is there?" or "Don't the politics make it un-investable?" Wrong.

The drivers behind the eurozone economy are now predominantly domestic. This is a fundamental break from the recent past when growth was dependent on exports to faster-growing parts of the world. Europe's recovery from the crisis years kicked in later than in the US, but is now firmly on track thanks to a steady, expectation-busting pickup in private consumption and (more recently) investment. Banks are lending again and unemployment is falling. A domestic demand-led recovery is far harder to stop in its tracks than one based on exporting your way out of trouble. This means Europe should be better able to cope with exchange rate fluctuations. It also has major ramifications for the kinds of stocks we want to own.



The drivers behind the eurozone economy are now predominantly domestic. This is a fundamental break from the recent past when growth was dependent on exports to faster-growing parts of the world.

Earnings growth should continue in 2018

Earnings growth is back. After a very respectable increase in 2017, the stars are looking well-aligned for 2018 given our economic outlook. Early indications also point to further acceleration in capital expenditures in 2018, implying positive knock-on effects for the corporate ecosystem.

And then there's politics

Politics is always good for a headline or sound bite in our news-obsessed world. Being a democratic kind of place with quite a lot of countries and, therefore, quite a lot of elections, Europe generates a lot of political news. In the end, politics only matters from an investment point of view when it poses a genuine threat to financial markets. In reality, Europe has seen far more market-friendly political outcomes than many commentators have predicted in the recent past. Note that France elected President Emmanuel Macron (who is promoting a market-friendly reformist agenda) and rejected the divisive, destructive Marine Le Pen. Looking forward, we work from the maxim that it is important to distinguish between the probable

and the merely possible, which leaves us relatively relaxed about the market implications of political trends within the future European Union of 27 states.

Buy the empty room?

So where to concentrate within the market? Years ago a broker made a comment which still rings true to us: "Buy the empty room when you go to an investment conference." In other words, those meetings with company management which few can be bothered to attend are often the most interesting. The "full rooms", i.e., companies with over-developed fan clubs, are often already over-represented in portfolios and indices alike, meaning that they could well be past their "sell-by dates" as investments.

There have certainly been times latterly when our portfolios have felt like the owners of an "empty room", with what we find attractive being well away from the main focus of the market. It's not a question of being awkward and contrarian just for the sake of it: we are simply trying to position our portfolios for the next phase in the markets to protect and enhance our clients' interests. We are seeking the best investment outcomes based on our view of how the European investment world develops from here. In 2016 we saw that sector rotation - a change in stock market leadership - can be powerful when it materialises, and as we currently see a significant bout of sector rotation as highly justified, we want to be ready for it.

We see value in out-of-favour sectors

We are valuation-focused portfolio managers - not strictly "value" or "growth" - and as such we'll look at most any investment. We don't particularly like these labels, but they can be very useful verbal shorthand. At the time of writing, we see striking valuation opportunities in out-of-favour sectors at the value end of the spectrum. In Europe, the prime examples are energy, telecoms and financials - especially banks. There are also sectors which we want to keep well away from - typically many of those which have attained "bond proxy" status in recent years. To our minds, some have become eye-wateringly expensive as a result. Consumer staples such as food and beverage stocks are cases in point. These are often companies with extremely strong and respectable track records, and while it is easy to understand their market image, it's important to remember that a good company does not necessarily make a good investment.

No matter how wide the divergence in valuations between sectors in our market, this is not just a valuation call. There are good reasons to believe that the operating performance of European integrated oil companies, telecoms and banks will improve from here. To cite just three factors at

play: Management attention to capital allocation and return on capital in energy is much improved, there are incipient signs of a return to long-absent growth in telecoms, and bank incomes are rising while costs are falling.



We see striking opportunities in out-of-favour sectors at the value end of the spectrum. In Europe, the prime examples are energy, telecoms and financials - especially banks.

Trouble ahead for bond proxies?

Meanwhile, in the much-loved and highly rated bond proxy end of the spectrum, we see trouble

brewing: Organic top-line growth has often been disappointing; attempts to buy growth through mergers and acquisitions can pressure returns on invested capital; bond yields are likely to rise from very low current levels given the resilience of eurozone economic performance; a bit of inflation may be returning and there is a whiff of central bank regime change in the air.

It's always tricky to judge exactly when the mood music in the market will change, but we believe the case for meaningful sector rotation is very strong and, as active portfolio managers, we want to be prepared for it. We look forward to welcoming more people to our empty room.

The synchronised economic expansion: How much further to run?



Nick Mustoe
Chief Investment Officer,
Invesco Perpetual

The global economy continues its synchronised recovery, as evidenced by robust data across regions. Indeed, all 45 countries tracked by the Organisation for Economic Co-operation are expected to post positive economic growth in 2017 for the first time in 10 years. Even more optimistically, 33 out of 45 countries are seeing accelerating growth. This has boosted international trade and commodity prices, and helped make the global expansion story gradually more self-sustaining. On this basis alone, the prospects for 2018 look positive, with broad-based improvements across the major developed economies and a number of emerging market economies expected to continue.

advanced economies stepped in to provide support to banks and other financial institutions, as traditional sources of funding dried up. Central banks reacted to the downturn by cutting interest rates and expanding balance sheets simultaneously by buying securities funded via the creation of excess reserves.

We are now entering the phase of the “great unwind,” with the Fed beginning to slowly sell the \$4.5 trillion in assets it bought to stabilise the economy. It’s a real milestone to reach. Could this be the beginning of a new era? The Fed has made lots of reassuring noises about the care it will take, but this is an unprecedented action. No one can be sure that policy mistakes won’t be made, disrupting bond and equity markets around the world. Even if the Fed’s reduction of its balance sheet is uneventful, the BOE, ECB and Bank of Japan all have to go through the same process at some stage.

Low interest rates and low bond yields created a massive hunt for yield, which pushed up prices for many assets (and saw the cost of capital reduced). The last 10 years have seen asset owners do well, encompassing property as well as equities, and thereby greatly increasing wealth inequality. But what of those who have been excluded? Government policy continues to lag in this area.

The employment picture remains strong. Unemployment levels have reached record lows of 4.3% in the UK for the three months ending August 2017, down from the post-crisis peak of 8.5% in 2011 and tying the lowest level since 1975.¹ In the US, the unemployment rate fell to 4.1% in October 2017, the lowest since December 2000.² However, real earnings continue to decline. There are many explanations as to why wages have not risen as unemployment declines, but the result is that central banks have been reluctant to raise interest rates. The risk in 2018 is that any upturn in wage growth could see central banks forced to raise interest rates more quickly than expected.

Just as no one had lived through anything like the scale of the 2007 global financial crisis, the recovery and post-recovery phases also see us in uncharted territory. The focus of the last 10 years might have been the wholesale rescue of the financial system, yet the policies which were aimed at growth creation mostly created asset price inflation in the end. The ultra-easy monetary policies – though undeniably necessary to prevent an even worse economic collapse in 2008 and 2009 – have arguably been carried on for far too long.

“ The prospects for 2018 look positive, with broad-based improvements across the major developed economies and a number of emerging market economies expected to continue.

The synchronised economic expansion that we’ve seen post the global financial crisis has helped stock markets rally and boosted the profits of many multi-nationals – creating what some might call a sweet spot for equities. The longer that global macro data continues to trend higher, the longer that the globally synchronised earnings upturn will remain compelling. Moreover, the benign global inflation environment has allowed central banks to keep monetary policy very loose – for now.

However, we will not remain at that sweet spot forever, and there is reason for caution. Are we in for a period of stronger, more decisive change in monetary policy? It’s certainly possible. The US Federal Reserve (Fed) has said that it would stick with plans for further interest rate rises, and it has thrown its crisis-era stimulus programme into reverse. Meanwhile the Bank of England (BOE) raised UK interest rates in November, and the European Central Bank (ECB) announced that it was looking at how to reduce the amount of economic stimulus it is currently providing. Everyone has been so used to the accommodative stance of the past 10 years, and markets have become complacent. But what if interest rates rise and central banks exit quantitative easing faster than expected? How would global financial markets react? This isn’t a scenario that’s priced in at the moment.

The beginning of a new era?

The global financial crisis of 10 years ago was a watershed event for financial systems around the world. Systematic losses by banks and the ensuing losses in economic output spurred governments into action. Governments in



Key takeaways

- The synchronized economic expansion has boosted global stock markets, benefited international trade and improved multinational profits.
- The Federal Reserve, Bank of England, European Central Bank and Bank of Japan all face balance sheet unwinding in the years to come.
- It’s unclear how global markets might react should interest rates rise and quantitative easing end faster than expected.



Equity valuations are trending at significant premiums to their long-term average with low levels of volatility, showing that investors are optimistic about prospects.

Economic growth prospects are as good as they have been since the global financial crisis, and there has been a real upswing in financial earnings. Equity valuations are trending at significant premiums to their long-term average

and are arguably discounting a lot of the good news with low levels of volatility, showing that investors are optimistic about prospects. The risk to this scenario is that central banks have to change their monetary policy more quickly than financial markets are currently anticipating.

1 Source: Office for National Statistics (ONS)
2 Source: Bureau of Labor Statistics

Adapting to the withdrawal of monetary stimulus

By **Stuart Edwards,**
Paul Read and
Julien Eberhardt - Invesco
Perpetual Fixed Interest Team

Bond markets have been in a sweet spot in recent years. Economic growth has been positive, inflation has been relatively benign, volatility and default rates have been low, central bank policy has been accommodative and the demand for income has been high. One of the biggest challenges we as fixed interest investors now face is what happens when one of the central pillars of this supportive environment - the still huge amount of central bank stimulus - is reduced.

asset purchases comes at the same time as the US deficit is predicted to increase to over US\$1 trillion. This means that private investors will need to absorb a lot more supply in the US and Europe. It is difficult to see strong demand for government bonds at current yield levels, and so one would expect to see higher yields as the process unfolds.



Key takeaways

- Bond markets have performed well for years primarily due to strong demand, low inflation, positive economic growth and accommodative monetary policies.
- With major central banks now normalising policies, there is a risk that investors will not absorb the extra supply until rates rise.
- Due to this and other factors, we believe it is unlikely that recent outsized bond market returns will be repeated in 2018.



One of the biggest challenges we as fixed interest investors now face is what happens when one of the central pillars of this supportive environment - the still huge amount of central bank stimulus - is reduced.

The macro view - Stuart Edwards

When thinking about the bond market implications of central bank tightening, it is worth taking a step back to understand why central banks now want to withdraw liquidity. Since the Global Financial Crisis, global economic growth has been relatively low but synchronised across developed markets. Recently, this has been helped by a pickup in global trade as a result of a resurgence in Asian trade flows and a recovery in North American imports. Labour markets meanwhile have continued to tighten, but thus far the historically low unemployment rate has not fed through to wage growth, which remains muted. This does not, in my view, mean that the Phillips curve (the inverse relationship between unemployment and inflation) is dead - it has just flattened. For structural, as well as short-term reasons, I believe labour markets need to tighten further before we see a pickup in wages. I am starting to see some signs that this is happening, albeit slowly. Although it is not my central view, I think the risk is that inflation turns out to be stronger (not weaker) than expected. Against this backdrop, central banks are seeking to normalise monetary policy.

How this plays out for markets will, in my view, depend on the pace of any tightening. So far, central banks have been very careful to communicate their strategies well in advance, and this should help to smooth the process of monetary policy normalisation. I expect (and markets are currently pricing in) the Bank of England to stop at 0.50% or possibly 0.75%, and both the European Central Bank (ECB) and the US Federal Reserve (Fed) to taper quantitative easing over a long period at a slow pace. If that view holds, then fixed income markets should remain well-supported. However, there remain risks. The ECB now owns nearly a quarter of the eurozone's outstanding debt, and the tapering of



Private investors will need to absorb a lot more supply in the US and Europe going forward. Since it is difficult to see strong demand at current yield levels, one would expect to see higher yields as the process unfolds

Credit markets - Paul Read and Julien Eberhardt

2017 has been good for many of our portfolios, with our exposure to corporate hybrids, subordinated financial bonds, high yield and US dollar-denominated bonds all delivering outsized returns. However, as a consequence of this strong performance, we now start 2018 with many areas of the European bond market looking expensive.

That said, a number of the factors that helped drive returns in 2017 remain in place. The demand for income remains very high and the ECB is still a dominant force in European credit markets. Although it is tapering its asset purchases, it is doing so very gradually and any actual hike in European interest rates still looks some way off. Amid improving economic data, "animal spirits" are also high. Meanwhile, companies have been able to take advantage of low yields by refinancing debt at more attractive terms, so there is currently little pressure on default rates. This mixed backdrop of positive fundamentals but expensive valuations leads us toward a more balanced investment outlook. It is difficult to see a scenario in which yields move meaningfully lower, and so income is likely to be the main component of return in 2018.

Our strategy is to seek out relatively "safe" sources of income while staying defensive overall. Periods of market strength provide the opportunity to reduce exposure and wait for better levels at which to add. That said, there are still some parts of the market where we are finding opportunities, and others we avoid. Generally, we stay away from those parts of the market that are being manipulated, such as peripheral European sovereigns and bonds purchased through the ECB's Corporate Sector Purchase Programme. Outside of these areas, the price of bonds often better reflects the underlying risk of the investment. Some of these areas include subordinated financials, corporate

hybrids and selective parts of the high yield market.

From a fundamental perspective, banks remain in a strong position. The bailout and rescues of the past year have removed weaker banks, leaving a stronger financial sector overall. Tighter monetary policy and steeper yield curves should, all else being equal, also be supportive of the sector. However, from a valuation perspective the outlook for the sector, like much of the corporate bond market, has become more balanced. Additional Tier 1 and contingent capital yields have fallen significantly in 2017, and so the standout valuation opportunity versus the high yield sector has, in our view, diminished. That said, there are still some opportunities, but we need to ensure that we are being rewarded for taking the risk.

US corporate bonds are another market where we are still finding opportunity. The expectation

that the Fed will continue hiking in 2018 is, to some extent, already priced into the US Treasury market. Compared to German Bunds, US Treasuries also offer between 160 and 240 basis points of extra yield across the curve. Nonetheless, the two markets are interdependent. The 10-year Treasury tends to pull the 10-year Bund higher, while the Bund anchors the Treasury. As this tussle plays out in 2018, we think the likelihood is for higher Bund yields. Higher rates feed straight through to banks' bottom lines so this should be supportive of our exposure to European subordinated financials.

Overall, it is difficult to see bond markets repeating the kind of performance we have seen in 2017. Our focus is therefore defensive, and we are taking relatively 'safe' income where we can while waiting for better opportunities to add exposure.

Global fixed income markets look well-supported by macro factors



Rob Waldner
Chief Strategist and Head of Multi-Sector, Invesco Fixed Income



Key takeaways

- Invesco Fixed Income's macro factor framework examines growth, inflation and financial conditions.
- Until and unless we see a change in momentum in one of these three macro factors, fixed income markets should remain well-supported.
- The "newsworthiness" of an event is not as important for markets as its impact on these three factors, in our view.

Macro

The current investing environment seems daunting. Markets have had a strong couple of years and valuations are tight. At the same time, risks abound. Geopolitical risks including North Korea, terrorism, Brexit and unpredictable politics in Europe and the US make for an uncomfortable investing environment. In such uncertain times, it is important to use an investing framework to help manage through the many risks in the markets, to remind us of the markets' key driving forces and to help measure the impact of events or potential risks.

Invesco Fixed Income's macro factor framework provides an understanding of how developments in growth, inflation and financial conditions globally are likely to impact markets. Currently, global growth is solid. US growth is now being supplemented by solid European and Japanese growth. Global inflation is low and benign. In 2018, we anticipate that central banks will begin to tighten financial conditions, but they will likely be cautious and the pace should be slow enough that overall financial conditions should remain easy. This view on global growth, inflation and financial conditions should be supportive of all risky assets in 2018, including credit and equities. Until and unless we see a change in momentum in one of these three macro factors, fixed income markets should remain well-supported. Our factor framework argues to maintain credit and risky asset exposures, but concentrate on closely managing risk in portfolios, given tight valuations.



We believe economic growth is moving in a positive and coordinated manner globally for the first time in many years, resulting in strengthening trends in corporate fundamentals.

We also use this framework to look at potential risks and actual political events. The "newsworthiness" of an event is not as important for markets as its impact on these three factors, in our view. We undoubtedly will continue to get some market volatility around political events in 2018, but we believe this volatility should mostly be short-lived, so long as it does not affect growth, inflation or financial conditions.

Global investment grade

The positive economic conditions in 2017 that reduced corporate credit spreads to multi-year lows is expected to continue in 2018. We believe economic growth is moving in a positive and coordinated manner globally for the first time in

many years, resulting in strengthening trends in corporate fundamentals. Expectations of a global recession remain low and inflationary trends are positive, yet appear to be contained across most developed markets. Monetary tightening may pose a slight headwind in the US, while liquidity remains high in Europe as the European Central Bank (ECB) is only starting to consider the discontinuation of asset purchases. As a result, we expect credit to outperform sovereign counterparts in 2018 as the additional spread generates incrementally higher income and provides a level of protection from slightly higher interest rates. Appreciation in corporate credit will likely be more challenged as the rally that started in the first quarter of 2016 becomes more sector and security-specific.



Expectations of a global recession remain low and inflationary trends are positive, yet appear to be contained across most developed markets.

The risks to our views include a significant change in monetary policy or an unexpected deceleration in global growth, which could result in deteriorating credit fundamentals. While we view a potential monetary policy mistake as a low probability, such an event could disrupt the current market cycle and alter our fundamental outlook. Disruption is also occurring at unprecedented levels across certain sectors - retail, for example - and trends will need to be monitored closely to minimize downside risks. We expect risk oscillation and sound credit selection processes will be necessary in 2018 to capitalize on opportunities and avoid problem sectors and issuers.

Global high yield

Our outlook for high yield is cautious. We acknowledge the favorable fundamental trends for high yield issuers but note that valuations fully reflect strong fundamentals. We are also cognizant of the market's ability to maintain current spread levels for a period of time, and flows continue to come into the asset class. Themes for 2018 across all credit sectors include a preference for financial issuers over non-financials, due to improving bank fundamentals and regulatory changes. Strong idiosyncratic credit selection across a range of industry sectors will likely benefit portfolios. Overall market fundamentals remain solid, but we do note weakness in the retail sector as structural disruption has caused investors to question many retail business models. The energy sector, specifically oilfield services and integrated energy, continues to improve as oil

prices firm. We think defaults will likely be muted in 2018 as favorable capital market conditions allow many companies to extend their maturity profiles. Most corporate revenue in the US high yield market is tied to the health of the US consumer, which, we believe, will likely remain stable in 2018.

Global liquidity

Continued economic strength in the US and abroad should keep the likelihood of higher interest rates and the US Federal Reserve (Fed) in play in 2018. However, recent years have witnessed some uncertainty around market expectations regarding the pace of monetary policy normalization, and 2018 will likely be no different. Following their September 2017 meeting, Federal Open Market Committee members indicated a median expectation of three rate hikes in 2018. Money market rates should closely follow the direction of Fed policy. Inflation and inflation expectations, which were surprisingly subdued in 2017, could also influence the direction of rates in 2018.

Prospects under newly nominated Fed Chair Jerome Powell are for continued transparency and predictability, which should provide a smooth transition and foster relative stability in the bond markets. As in recent years, we expect the Fed to utilize forward guidance and a gradual approach to monetary policy implementation with minimal disruption to the markets.

The unwinding of the Fed's balance sheet, begun in October 2017, should continue at the Fed's planned gradual pace. This would add to market supply and potentially place some upward pressure on yields. Ample supply of US government securities should satisfy the money market's appetite for short-term government securities. As in 2017, we will be watching for potential developments around the US debt ceiling in early 2018 and the impact on US Treasury issuance and Treasury bill yields.

In Europe, money market fund reform was signed into law in 2017 and should start to take shape in 2018, with final implementation slated for Jan. 21, 2019.

Structured securities

We expect the primary focus of the agency mortgage-backed securities (MBS) market in 2018 to be the Fed's initiative to reduce the size of its bond portfolio. While the program is expected to be gradual, we expect agency MBS spread volatility to increase from historically low levels, as private investors must absorb greater supply, which could result in some spread widening.

Agency MBS valuations remain historically rich, with spreads at multi-year highs. While agency MBS have been supported by strong commercial bank and mortgage REIT demand, and we expect this to continue in 2018, the pace of home purchase activity will also likely be a driver of 2018 performance. If the housing market slows due to affordability or inventory issues, the market could face less origination volume to

absorb. Foreign demand will also likely play a pivotal role. Given strong underlying fundamentals, exogenous macro developments and risk appetite will likely influence residential credit spread trends.

In commercial real estate, values have risen considerably in recent years, but we believe the risk of an asset bubble in 2018 is more an equity concern than an investment grade debt risk, as collateral quality, credit enhancement and underwriting have improved materially since the global financial crisis. We continue to believe that underlying commercial real estate fundamentals in the US, in terms of vacancy rates and delinquencies, will be a positive factor for the commercial mortgage-backed securities (CMBS) asset class in 2018, although we expect a slower pace of property price appreciation and further weakness in the retail sector.

Emerging markets (EM)

We are constructive on EM debt in 2018 as investors are expected to re-establish their allocations to the asset class. EM hard-currency credit and local-currency bonds should continue to benefit from broadly favorable global financial conditions and steady - if uneven - improvement in EM macro fundamentals. This outcome is predicated on a gradual removal of extraordinary monetary policy accommodation by developed market central banks, on the back of stable, synchronized global and EM growth and a manageable slowdown in China.

The longer-term outlook is also broadly supportive of EM, in our view. We expect relatively modest nominal growth among developed economies due to low inflation and modest real growth, which is limited by weak demographics and productivity growth. This means that any rise in global interest rates should remain relatively contained, preserving the attractiveness of higher-yielding asset classes such as EM.

We believe EM hard-currency bonds offer a compelling yield advantage to comparable asset classes when adjusted for credit quality, given that EM country fundamentals have improved and external vulnerability has declined since the so-called "taper tantrum" in 2013. At the same time, we expect EM local-currency bond yields to continue to compress, particularly relative to developed government bond markets. In addition, given the amount of currency depreciation between 2012 and 2015, EM currencies remain attractive on a valuation basis, particularly relative to the US dollar. In 2018, we expect EM local currency investments to outpace EM credit in terms of total return, in our baseline scenario, but recognize that EM currencies are a more volatile asset class. In 2018, therefore, we believe that EM local currency is likely favorable in terms of outright returns, while EM credit is likely favorable on a risk-adjusted basis.

Currencies

Our macro factor framework continues to support our view for continued cyclical US dollar weakness. Global convergence is expected to

continue to play out and, absent systemic shocks, this regime is expected to lead to a weaker US dollar. We expect the other major currencies to continue to appreciate against the US dollar, save for the Swiss franc, which we expect to revert to its historical, pre-global financial crisis average. We do not expect inflation to force the Fed into a more aggressive stance. Emerging market currencies will likely be dominated by idiosyncratic factors rather than global ones, so we prefer to focus on relative value opportunities in this space instead of directional trends.

European fixed income

European growth has been a great success story in 2017, and we remain constructive on further broad economic recovery in 2018. The euro-area continues to benefit from benign global growth momentum, and political risks have failed to drag down economic sentiment so far. Although underlying inflation pressures remain weak, they are expected to increase slowly on the back of steady growth and a firming labor market. The European Central Bank (ECB) decision to extend its asset purchase program for nine months from January 2018, while stating that interest rates will remain at current levels, well past the end of quantitative easing (QE), should keep expectations about short-term rates low until well into 2019. This should provide time for governments to work on structural reforms and potentially plan around closer eurozone integration. We are less constructive on the European periphery as the ECB unwinds QE in the face of government bond supply. Politics will likely remain on the forefront, with Italian elections slated for no later than May 2018, for example, which is bound to generate headline noise.

US municipal bonds

As we look into 2018, the major theme for the municipal market is likely to be the outcome of the proposed Tax Cuts and Jobs Act of 2017 in the US, specifically the language that curtails the ability of state and local governments and other entities to issue advance refundings, private activity bonds, tax credit bonds, and tax-exempt bonds for professional sport stadiums in the US. Under the private activity umbrella are US issuers such as private universities, Continuing Care Retirement Communities (CCRCs) and not-for-profit hospitals. As it stands, we estimate that 25% to 30% of municipal supply could be affected by the provisions of the US House of Representatives tax bill. While these limitations could be problematic for both municipal issuers and US investors going forward, current holders of these types of bonds could be compensated

for the expected scarcity in terms of price appreciation. Due to the threat that many issuers may no longer be eligible to access the lower borrowing rates that they currently enjoy in the municipal market, we expect a short-term spike in issuance through year end 2017. While we believe that there is ample cash to absorb such an increase, it would likely result in a reduction of 2018 supply. Aside from these issuance limitations, the tax proposal is largely viewed as benign to the overall municipal market given that tax-exemption is preserved and individual tax rates remain largely unchanged for the top income tax bracket. This could improve the valuations of existing municipals and tighten municipal supply going forward - resulting in a positive technical environment for municipals in 2018. Meanwhile, lower corporate taxes, and the cap on some net interest deductions, could drive significant deleveraging across the nonfinancial corporate universe. Decreased credit issuance could increase demand for municipals among crossover investors, which would likely be positive for the asset class.

Indian fixed income

The Indian fixed income markets are expected to reap the benefits of macro stability in 2018. The benefits of benign inflation, a lower fiscal deficit, lower levels of cash transactions, post-demonetization, a more efficient tax collection framework that unifies goods and services taxes, higher foreign exchange reserves due to higher foreign business and portfolio inflows, and a low current account deficit are all expected to support Indian financial assets in 2018.

We expect Indian bond yields to decline in 2018 due to high real interest rates, easy liquidity and tepid credit growth. The demand for bonds remains high while supply has become constrained by a split between domestic issuance and offshore issuance in the new "masala" bond market. The rupee is also expected to remain largely range-bound, with a bias toward appreciation, due to contracting inflation differentials and improvement in India's current account deficit.

We expect Indian credit spreads to contract for higher-rated credits due to the ample availability of liquidity and the pass-through of lower interest rates to borrowers. However, geopolitical tensions, trade protectionism and potential slippage on government fiscal targets, fuelled by the pressures of needed job creation, remain risks to this outlook.

Balancing cyclical and structural influences in multi-asset investing



David Millar
Head of Multi Asset,
Invesco Perpetual

Despite what has been an incredibly tumultuous, unpredictable and at times unimaginable period for global politics and an initially spluttering return to global growth, central banks appear to have successfully steered markets through the worst, ironing out the kinks and at times acting together to present a semblance of global harmony. Sometimes, markets have appeared to simply ignore events that in less interesting times would have caused a rout. Somehow though, it still doesn't feel that the aftermath of the financial crisis is fully behind us, nearly 10 years on, and we believe it is vital to consider both cyclical and structural forces in building our economic and market outlook.

Cyclical factors can often dominate investor thinking, but typically exert a short-term influence on the markets. We take a two- to three-year view of the world when building our central economic thesis, which guides and anchors - but does not strictly dictate - our investment decisions. For this reason, we also need to incorporate, or at least acknowledge, some of the structural influences that can very quickly become a core focus for investors.

What is our central economic thesis?

Heading into 2018, our current outlook for the next two to three years is as follows:

Global growth prospects remain subdued

- Economic growth is being boosted by cyclical factors (e.g., consumption, trade).
- Structural issues, such as high debt, continue to hamper future growth potential.
- Global liquidity is grinding lower, capping the upside for credit growth in this cycle.

Low inflation is likely to persist

- Lack of pricing power and debt overhang will keep inflationary pressures contained.
- There is some upside potential from wages as politics influence wage negotiations.
- But, the global price of labour will likely remain low.

Core bond yields are capped; there is long-term structural support for the US dollar

- Core bond yields are ultimately driven by structurally lower nominal economic growth.
- Despite near term uncertainty, the US dollar has support from its global funding role.
- Broader policy conflicts are influencing central bank decision making.

Cyclical earnings improvement provides some support for risk assets

- US earnings per share is supported by financial engineering, fuelled by loose monetary conditions.

- Expensive credit is vulnerable to policy change; equity returns are dominated by dividend income.
- Diversified alpha is an additional source of value.

Volatility is stubbornly low but likely to rise from here

- Lingering macro uncertainties suggest equity market volatility is unsustainably low.
- Fixed income and currency volatility are sensitive to central bank action.
- Market volatility is impacted by investor behaviour (e.g., the search for yield).

What is our central economic thesis?

How has our thesis evolved over time?

When we launched our strategy in 2013, our central view was characterised as "cautious optimism," which served us well at the time. However, with the benefit of hindsight, we can see that we have been too cautious more recently, underestimating the ability of risk markets to continue performing in the prevailing low rate, liquidity-induced environment. We were caught off guard by ever-declining market volatility - however, we still believe that volatility will return.

For three years, our cautiously optimistic view of the world led to some of our investment ideas being implemented through simply buying equities or buying bonds because financial markets were still underpinned by extraordinarily loose monetary policy. We became more cautious as we saw a more complicated policy backdrop in the face of persistent structural challenges, which drove us to look for alternative sources of returns.

Speculation around the future direction of interest rates or the likely unwinding of asset buying programmes remains a potential trigger for financial markets and, while volatility remains at historic lows, we believe it continues to present opportunities as an asset class in our two- to three-year investment horizon as macro uncertainties linger. Another side effect of this low volatility world is that some of the more traditional investment ideas now look less obvious and more fully valued.



A side effect of this low volatility world is that some of the more traditional investment ideas now look less obvious and more fully valued.



Key takeaways

- We take a two- to three-year view of the world when building our central economic thesis.
- We believe it is vital to consider both cyclical and structural forces in building this thesis.
- These factors also influence some of the ideas in our portfolio.

Balancing cyclical and structural factors

When you look at some of our investment ideas, it is possible to see this push and pull of cyclical and structural factors playing out. For example, we expect real interest rates in Europe (government bond yields minus inflation expectations) to rise but, at the same time, we expect eurozone inflation expectations to fall.

The cyclical influence on this idea comes in the form of the limitations of European Central Bank (ECB) monetary policy. During and post the financial crisis, policymakers sought to respond to the collapse in economic growth by pushing down real interest rates. Negative real interest rates were needed to stave off the crisis and, as time has moved on, the result of central banks keeping interest rates low and keeping extraordinarily loose monetary policy in place has been a gradual increase in inflation expectations.

However, it appears that global central banks are now starting to retreat from this policy for a number of possible reasons. Firstly, policymakers need to determine how useful such extraordinary policy is in driving economic growth from here. Looking at Europe, there has been an economic recovery despite nominal growth remaining weak versus history, which means that there is less support for maintaining such emergency levels of policy support.

The other important driver for the potential change of behaviour by policymakers is how effective this approach to policy is in stimulating the next phase of the economic cycle. In particular, negative real interest rates undermine bank profitability, which could impact economic growth over the longer term. This is one of the reasons why we believe the current level of negative real interest rates in Europe is unsustainable longer term.

The structural influences on the idea are reflected in our view that if real interest rates rise, inflation expectations will start to fall. This captures the ongoing structural difficulties that the eurozone continues to face. Core inflation is relatively dormant, demographics continue to play their part and wage inflation has been the

missing link in the improvement in labour market data for the region. All of this suggests that, if real interest rates do head higher (which appears to be the only path for the ECB), then inflation expectations could decline in response as ultra-loose monetary policy appears to have been one of the major factors underpinning the rise in longer-term inflation expectations that we have seen to date.

Maintaining our two- to three-year view

Volatility has continued to fall in recent years, which is perhaps surprising given all of the macro uncertainty which has prevailed. We continue to monitor risk and the level of volatility very carefully because our portfolios explicitly target less than half of global equity volatility over time. We police our portfolio volatility (and so the diversification of the investment ideas within our portfolios) through extensive scenario testing. We seek to ensure that we can participate in the upside of financial markets while avoiding any major drawdowns.

We are sometimes asked why we don't increase risk in order to improve returns. However, there is a constraint to how much independent risk we can take from our individual ideas, so a lower-than-target risk level represents the effects of diversification rather than too-conservative ideas.

We will always look forward over the next two to three years - it would be imprudent to overrule this view in order to try and boost short-term returns, especially given current market uncertainty. We firmly believe that it is important to not succumb to this type of pressure. While it is very difficult to accurately predict a change in regime, it is important to consider that one could come at any time.



We will always look forward over the next two to three years - it would be imprudent to overrule this view in order to try and boost short-term returns.

Can stability in the region extend Asia's outperformance?



Mike Shiao
Chief Investment Officer,
Invesco Asia ex Japan



Key takeaways

- We see three positive fundamental structural drivers in Asia.
- Stable politics favors further reform in China and India.
- Bottom-up opportunities are arising from Asia's stable backdrop, in our view.

2017 has been a good year for Asian equities so far, rising 36% and outperforming the rest of the world.¹ The strong performance has been supported by steady economic conditions and robust corporate earnings. Yet still, Asia is trading at its lowest price-to-book ratio relative to the S&P 500 Index in 15 years.²

So where do we go from here? Our view is that there are three positive fundamental structural drivers that can help Asian markets remain strong in 2018:

- Stability on various fronts, including economic growth and policy decisions
- Good opportunities driven by earnings, liquidity and valuations
- A reduction in risk

Stable growth is in the forecast

Asia's headline economic growth is expected to steadily adjust from the recent annual growth rate of 6.0% to 5.8% in 2018.³

In China specifically, we expect growth to moderate, but to remain on track to deliver the government target of 6.5% growth, which is a decent expansion compared to other major economies.⁴ Investments and exports are expected to soften, while domestic consumption will continue to be the key driver in our view. Income growth remains resilient, providing support to consumption.

The macroeconomic environment in India is also favourable, with manageable inflation and a stable growth outlook. The Indian economy has been rebooted under Prime Minister Narendra Modi's bold reforms. As the long-term benefits start kicking in, we expect to see improving fiscal balance, sustainable growth in private consumption, and better corporate earnings.

Elsewhere in Asia, retail sales growth is expected to remain robust in South Korea, while ASEAN economies (Association of Southeast Asian Nations) will likely see ongoing recovery in investments and exports.

Stable politics favors further reform

Asian leadership is stable, in particular within China and India. Chinese President Xi Jinping has smoothly transitioned to his second term after achieving a solid track record of reform in his first term. Supply-side reform has seen good developments, with the coal and steel industries achieving their targets for capacity cuts faster than expected. Looking into 2018, we believe strong leadership under Xi will result in further progress on reforms. In particular, state-owned enterprise (SOE) reform needs to go hand-in-hand with supply-side reform, as most excess capacities centered around SOEs.

In India, Modi's government has enjoyed a single-party majority since 2014, allowing it to avoid the political paralysis of previous governments. This has given rise to bold reforms. Notably, the demonetization reform has successfully replaced 86% of the currency in circulation in India within a timeframe of just two months.⁵ Together with the smooth rollout of the Goods and Services Tax (GST) bill, these successful track records formed a solid foundation for Modi to deepen reforms. Going into 2018, we expect India to see stronger "financial inclusion," i.e., a faster shift of household savings from physical assets (such as gold bars and cash) to financial assets. Banking and financial services should see increasing penetration.

Earnings expected to remain intact

Asia's earnings trend remains positive. Over the medium term, we do not see any particularly strong factors that could reverse the earnings trend. Asian corporate earnings have largely beat expectations in the latest reporting season, leading to upward earnings revisions across countries.



Over the medium term, we do not see any particularly strong factors that could reverse the earnings trend in Asia.

China's earnings trend remains positive, and we anticipate information technology and consumer-related areas will continue to deliver quality sustainable growth. In India, we expect corporate earnings to gradually normalize after the short-lived impact of the GST bill, and will reap the economic benefits of reform initiatives, which are well underway. Corporate earnings in Korea and Taiwan are expected to benefit from the rising trend of artificial intelligence and big data. The need for faster processing power gives rise to the demand for semiconductors.

Liquidity trends look supportive

US interest rate hikes are likely to be gradual, allowing sufficient liquidity to go around the global financial system. In Asia, southbound flows coming from mainland Chinese investors should continue to provide structural liquidity support for the H-shares and Hong Kong stock market. In India, domestic mutual funds have seen strong inflows, with total assets under management doubling over the past three years. We believe the sticky and structural domestic allocation will continue into 2018.

Valuations remain accommodative

Despite the strong performance in 2017, Asian equities are currently trading on par with their

long-term historical average on both a price-to-earnings and a price-to-book basis.⁶ Compared to other regions, we are seeing a meaningful discount to developed markets in price-to-earnings terms, with a 12% discount to Europe and a 27% discount to the US.⁷ We expect valuations to become even more appealing as further earnings kick in.



Compared to other regions, we are seeing a meaningful discount to developed markets in price-to-earnings terms.

Assessing bottom-up opportunities

We see bottom-up opportunities arising from the stable backdrop in Asia. In the information technology space, we prefer the leaders in China's internet services industry, which enjoy a near-monopoly status and strong competitive edges. In particular, the user ecosystem that these leaders have built spawns many monetization opportunities, ranging from e-commerce to mobile payments.

In India, we favour the financial space, which is benefitting from India's move away from being a cash-dominated economy. Within this space, we prefer companies with high exposure to consumer-related financial needs and private sector banks that are more efficiently run. We also believe that the rising middle class in India creates opportunities across multiple segments ranging from household appliances to consumer finance.

Risks to watch in 2018

Stability on the macroeconomic and political fronts has resulted in a reduction in overall risk in Asia. While we do not see major uncertainty overhangs for 2018, below are the aspects that investors should monitor rather closely:

■ Trajectory of US interest rate hikes.

While the market is expecting gradual interest rate normalization in 2018, volatility could arise if interest rate hikes turn out to be faster or higher than what the market is currently pricing in. An unexpected turn of US Federal Reserve rates could have implications to how Asian central banks should continue with their monetary policies.

■ Geopolitical tension with North Korea.

It remains difficult to predict the interaction between North Korea and the US. Our view is that any major impact triggered by military aggression on either front would not only affect the Asian region, but would influence global economies at large.

Conclusion

Stability in Asia gives potential for the region to extend outperformance. A steady growth backdrop is conducive to bottom-up stock selection, allowing investors to focus on company fundamentals, without the need to worry about major top-down uncertainties.

1 Source: Bloomberg L.P. Based on returns for the MSCI Asia ex Japan Net Total Return Index, expressed in US dollar terms, as of Oct. 25, 2017.

2 Source: Bloomberg L.P. Data as of Oct. 9, 2017.

3 Source: Bloomberg L.P. Recent level of GDP refers to the Asia ex-Japan year-on-year GDP growth rate as of June 30, 2017. 2018 expected GDP growth rate refers to Bloomberg consensus estimate as of Sept. 26, 2017.

4 Source: Xinhuanet. The Chinese government set the 2017 growth target of around 6.5% during the annual National People's Congress (NPC) held on March 5, 2017.

5 Source: The New York Times, as of Nov. 14, 2016

6 Source: Citi research estimates. Long-term historical average refers to the period between Jan. 1, 1975, and June 8, 2017.

7 Source: FactSet Research Systems, I/B/E/S, MSCI, Goldman Sachs Global Investment Research, as of Oct. 20, 2017.

2018 growth may moderate, but reforms and innovation bode well for the longer term



Mike Shiao
Chief Investment Officer,
Invesco Asia ex Japan

Chinese equities caught investors by surprise in 2017 with a strong rally. Contrary to the pessimism over the past few years, investors have turned upbeat toward China, and for good reason: Economic data in general exceeded expectations, and we have seen broad-based earnings growth.

For 2018, we are expecting a moderation of growth. That said, there are several encouraging signs that are worth monitoring. In our view, these will be supportive for a transition to better quality growth.

- Progress in deleveraging
- Supply-side and state-owned enterprise (SOE) reforms
- Industrial innovation
- Structural southbound liquidity
- MSCI A-share inclusion

Growth expected to moderate in 2018

We are of the view that gross domestic product (GDP) growth will gradually moderate in 2018 from 2017 levels, but should be on track to deliver the government's target of around 6.5% growth.¹ We believe consumption and services are the structural drivers for China's GDP growth going forward. Income growth continues to be strong in the high single digits. We believe consumption and services will continue to drive the economy in 2018, as underpinned by urbanization and rising income trends.

Investments and exports are expected to soften going into 2018. However these are less of a concern in our view. Exports, for instance, are unlikely to become a key growth contributor, given that China's export share to G3 economies has largely stagnated since the start of this decade. We expect the Fixed Asset Investments (FAI) in real estate to slow, as that is in line with the overall policy to prevent a property bubble. We believe the government's shift toward a Private-Public-Partnership (PPP) model, with the aim to attract private sectors to co-invest, is a very encouraging sign.

Progress in deleveraging

We have seen positive progress with China reining in overall debt in 2017, and we believe deleveraging will remain a high-priority agenda item for the government in 2018. So far, we have seen ongoing policy tightening in the financial industry in an effort to temper irrational credit growth. Results have been encouraging. Wealth management products, one of the proxies for shadow banking, have shown contraction in recent periods. We believe progress in deleveraging will continue in 2018, although in the short term, we may see pressure in terms of funding for smaller enterprises in

China, which could weigh on short-term growth in 2018. However, over the longer term, a reduction of overall financial risk should lead to stability and better quality growth going forward.

Supply-side and SOE reforms

Supply-side reforms have seen remarkable progress over the past two years, with the coal and steel industries achieving their capacity curb targets faster than expected. We expect more disciplined supply-side controls to continue into 2018, leading to a more favorable supply-demand balance in industries with excess capacity.

We believe one of the key solutions to the problem of outstanding debt is to fix SOEs' lack of competitiveness. Early 2017 saw some positive momentum, and we expect this to continue. We have started to see SOEs increasing their dividend payouts and introducing mixed ownership in their structure. Both of these steps are evidence of the change in mindset to make companies more profitable and market-driven.



Supply-side reforms have seen remarkable progress over the past two years, and we expect more disciplined supply-side controls to continue into 2018.

Industrial innovation

We are already seeing industrial innovation happening. Research and development (R&D) spending in China has increased fivefold since 2005, growing at 18% per year, and with the second-highest R&D investment globally.² With government policy support, we expect China to further move up the value chain. Becoming one of the top-ranked innovative nations by 2035 is a key government priority, and we can see that it is moving in the right direction.³ The government is committed to fostering innovation-driven growth. With rising labor costs, we expect increasing automation to enhance productivity and efficiency gains in 2018.

Structural southbound liquidity

We are seeing strong flows from mainland Chinese investors into a broad group of Hong Kong-listed Chinese equity stocks. Currently, the MSCI China Index consists entirely of Hong Kong-listed Chinese equities (i.e., H-shares+)⁴ and offshore American Depositary Receipts (ADRs), despite the MSCI A-share inclusion scheduled to happen in 2018. Year-to-date, US\$28 billion has flowed into the Hong Kong stock market via the southbound link of the Stock Connect program.⁵



Key takeaways

- For 2018, we are expecting a moderation of growth.
- That said, there are several encouraging signs that may support better quality growth in the longer term.
- Going into 2018, we maintain our optimism for Chinese equities.

Our view is that the southbound flows signify a structural, long-term allocation to Hong Kong stocks by mainland Chinese investors. We believe these flows are here to stay because more mainland Chinese insurance and institutional investors are coming to the H-shares+ space in search of unique investment opportunities that are not offered elsewhere. Looking into 2018, we believe robust southbound flows will provide supportive liquidity to Hong Kong-listed Chinese equities.



In our view, the positive developments of southbound liquidity and MSCI inclusion only mark the beginning of a rising asset class.

MSCI A-share inclusion

The “yes” decision in 2017 to include China A-shares in the MSCI Emerging Markets (EM) and China indexes is a milestone development. 2018 will see the first step of inclusion, with MSCI adding 231 A-share stocks to its EM and China indexes. The initial inclusion weight in 2018 is not meaningful, estimated to represent 2.6% of the MSCI China Index and 0.8% of the MSCI Emerging Markets Index. Our view is that A-share inclusion will provide a more complete investment universe for global investors and will better reflect the entire Chinese economy. Looking ahead, we should see increasing allocation to Chinese equities as an asset class, and this should be worth the attention of investors.

Conclusion

We have seen positive earnings upgrades in 2017, and we believe Chinese companies remain on track to deliver 2017 earnings growth of 17.9%, compared to -9.4% in 2016.⁶ We do not see the earnings trend reversing in the medium term, although the rate of growth in 2018 may not be as strong as in 2017. The expected earnings growth for 2018 is 15.8%.⁶ Despite the strong rally in 2017, China is still trading at reasonable valuations. The MSCI China Index is

trading at a 15.8x price-to-earnings ratio, which is largely at the historical mean, and at a 14% discount to developed markets. ⁶

While China’s topline growth is expected to moderate, there is encouraging progress on the deleveraging and reform fronts that can help China achieve a balanced growth economy. Going into 2018, we maintain our optimism for Chinese equities. In our view, the positive developments of southbound liquidity and MSCI inclusion only mark the beginning of a rising asset class.

- 1 Source: Xinhuanet. The Chinese government set the 2017 growth target of around 6.5% during the annual National People’s Congress (NPC) held on March 5, 2017.
- 2 Source: UBS research, estimates as of Sept. 28, 2017. It is estimated that China could exceed the US spend by 2018 in purchasing power parity (PPP) terms if the current growth rate continues.
- 3 Source: Credit Suisse research, quoting President Xi Jinping’s speech at the Party Congress held in October 2017.
- 4 “H-shares” are defined by the Hong Kong Stock Exchange as companies that are incorporated in mainland China and whose listings in Hong Kong are approved by the China Securities Regulatory Commission (CSRC). This group of companies forms an integral part of the offshore Chinese equities listed in Hong Kong. In this outlook, “H-shares+” refers to a broader definition that includes H-shares, red chips and other Hong Kong-listed Chinese companies.
- 5 Source: Goldman Sachs, year-to-date data as of Sept. 27, 2017. Launched in November 2014, the Shanghai-Hong Kong Stock Connect is a securities trading and clearing links program that allows both international and domestic investors to make cross-border stock purchases between the Shanghai and Hong Kong stock markets. Launched in December 2016, the Shenzhen-Hong Kong Stock Connect is a securities trading and clearing links program that allows both international and domestic investors to make cross-border stock purchases between the Shenzhen and Hong Kong stock markets.
- 6 Sources: FactSet, I/B/E/S, MSCI, Goldman Sachs Global Investment Research, Invesco, as of Oct. 20, 2017.

Why Asia has done well this year?



Stuart Parks

Head of Asia Equity, Invesco Perpetual



Key takeaways

- Our earnings growth outlook for 2018 is largely positive.
- Our regional outlook is based on positive trends in domestic consumption, global economic growth, interest rates and infrastructure spend.
- We see value in the technology and banking sectors as well as in South Korea.

2017 has seen Asian equity markets rally largely due to the strength of corporate earnings. At the start of the year, earnings growth expectations for 2017 were low at approximately 10%, but over the course of the year they have been revised up to 20%. The recovery has been helped by a combination of factors such as: solid global economic expansion, a lack of disruption from President Trump, falling bond yields in some Asian markets and a small earnings re-rating.

What is the outlook for earnings in 2018?

In our view, the outlook for earnings growth in 2018 is broadly positive. Consensus earnings growth expectations for 2018 have been gradually moving up over the course of this year and are now close to 10%. Recently, these expectations were boosted by China's second quarter 2017 results season, in which almost two-thirds of companies beat expectations¹. Elsewhere, consensus earnings estimates for the Indian market² were marginally revised upwards for the full year 2018, post significant downward revisions over the summer months. Going forward, Indian earnings growth should benefit from easier year-on-year comparisons after the government's demonetisation of high-value currency (November 2016) and the introduction of the Goods & Services Tax (July 2017) reduced prior year numbers.

These are the main factors which dominate the outlook for 2018 Asian earnings: domestic consumption (particularly in China), global economic growth, the interest rate environment and infrastructure spending. We expect consumption to remain strong in China, with support from wage growth, and to increase in India, driven by a very gradual revival in economic growth. Elsewhere, we believe consumption may continue to be relatively subdued - in particular, the debt overhang in Korea, Malaysia and Thailand renders it difficult for these countries to stimulate consumption significantly. Infrastructure spending, an obvious kicker to growth in much of the developed world, is also a factor that should support growth in Asia. For example, the Belt and Road (OBOR) infrastructure initiative is aimed at increasing cross-border trade within Asia and beyond. The emphasis placed on this programme by President Jinping at the recent China Party Congress suggests that 2018 will see increased stimulus as a result of its implementation.

It is also helpful to consider the outlook for earnings growth from a sector perspective, and in particular, to look at the Asian technology and financial sectors, which account for well over 50% of the market. These sectors saw strong earnings growth in 2017, and we expect this trend will probably continue in 2018. For the banks, the main supporting factors will be: some top-line growth as economies pick up; net

interest rate margin expansion on the back of higher interest rates; and continuing low bad debt provisioning requirements. In the technology sector, capital discipline and lessening competition is enabling the largest companies, such as Samsung Electronics and Taiwan Semiconductor Manufacturing Company, to capitalise on strong demand growth. Furthermore, select internet companies are taking advantage of increased internet penetration to grow their businesses profitably. So, in aggregate, we expect earnings growth to be reasonably attractive in 2018, but not as powerful as in 2017.



We expect earnings growth to be reasonably attractive in 2018, but not as powerful as in 2017.

What are the important themes for the region?

China. China is crucial for the prospects of the whole region, and so far gross domestic product (GDP) growth has remained stable at a respectable level (i.e. third-quarter 2017 real GDP growth of 6.8%³ year-on-year), helped by stimulatory government policies and continuing income growth. GDP data showed that consumption growth remained robust with retail sales growing at approximately 10% over the last 12 months. Progress has also been made in rebalancing the economy away from investment-led growth, with consumption as a share of GDP standing above 60% for seven consecutive quarters (as of the third quarter of 2017)⁴.

Although the debt mountain has remained high - China's debt-to-GDP ratio is still 270%⁵ - the continued liquidity of the banking system, aided by strong domestic saving rates, means that the economy is unlikely to topple over in the short term. Related to this, a further concern in China has been whether pressure on foreign exchange reserves as a result of capital flight could result in currency devaluation. This in turn would lead to the necessity of higher interest rates, which would dampen economic growth. Reserves have now stabilised, mainly as a consequence of government intervention, and the pick-up in global growth has also enabled the Chinese export growth recovery to strengthen foreign exchange reserves.

India. Another important theme within Asia is the progress of reform in India. Over 2017, the Indian equity market performed well in spite of the fact that earnings growth underperformed expectations. Under Prime Minister Modi, India has the best reform momentum amongst the countries we invest in: the implementation of the Goods & Services Tax is progressing well; tax revenue is increasing; the approval of the Bankruptcy Code has been a significant step

towards cleaning up banks' balance sheets; the government's demonetisation of high-value currency in 2016 is shrinking the black market ; and the Indian government's recent recapitalisation of the state-owned banks should enable the stronger banks to accelerate their loan growth.

Ultimately, investors have remained confident that these reforms are increasing the economy's potential growth rate, which should support higher earnings in the longer term while, at the same time, helping to control inflation and the fiscal and current account deficits. We concur with this view, but if these reforms do not actually produce improved economic growth over 2018, then investors will start to question whether the valuation premium attached to Indian companies is deserved.



We believe the market valuations of many Asian companies do not reflect their ability to grow earnings, generate strong free cash flow and increase dividends.

Where are we finding value?

In many of our portfolios, technology has been our largest sector overweight relative to the index. Within technology, the Chinese internet companies have been producing stellar earnings growth on the back of consumption-led growth in China, and we expect this to continue in 2018. Consumers have been quick to adopt mobile internet applications, and companies that have been willing to innovate in online services, such as social media, gaming and e-commerce, have become dominant players. We have notable exposure to these companies as we believe the market is too sceptical about their ability to maintain strong long-term growth. Within our technology hardware exposure, we also have a preference for companies that have healthy balance sheets, strong free cash flow generation and growth potential, but remain undervalued. For example, we hold a notable position in Samsung Electronics which, despite its strong share price performance, remains undervalued relative to the prospects for its main divisions, in our view.

We are also overweight the banking sector in many portfolios. We believe that banking systems with less extreme loan growth in recent years, such as in Korea and Singapore, and those that have been proactive in recognising bad assets, as in India, will be better-placed. For example, in India we favour the well-capitalised private sector banks, which have seen their valuations fall to attractive levels such as ICICI Bank. Representing only 30% of total lending⁶, the private banks still have potential to gain market share from the state banks, which struggle to compete on customer service, efficiency and credit appraisal.

Turning to the energy sector, the near-term outlook for oil prices remains uncertain, but we have been able to find some attractive

opportunities that are still profitable even in a low oil price environment. For example, we are positive about the outlook for CNOOC, a Chinese oil business that we anticipate should benefit from management's focus on profitability and asset returns. Furthermore, we believe this company's oil reserves are being underappreciated by the market.

Another source for attractive investment ideas is South Korea, which has long been amongst the cheapest markets in Asia⁷. This discount partly results from the higher representation of cyclical stocks in the market and from the uncertainty caused by periods of aggressive behaviour by the North Korean regime. However, Korea's history of poor corporate governance has also been a significant factor in the discount. This is best demonstrated by the low average dividend payout ratio as compared to the average for the Asian region⁸. However, we believe that this is starting to change for the better with positive implications for valuations. Firstly, Samsung Electronics has moved to a capital return policy which outlines that at least 50% of free cash flow will be returned to shareholders in the form of dividends and share buybacks. As Korea's most successful company, Samsung's more shareholder-friendly actions are likely to be copied by other business groups. Secondly, the Korea National Pension Service, a large shareholder in many Korean companies, has begun to be more forceful in demanding better shareholder returns.

What areas of the market are we avoiding?

From a geographic point of view, we remain concerned about Malaysia as we believe that many long-term problems in this country have not been addressed. Until they are tackled, high valuations combined with low growth and political uncertainty means that we will continue to avoid investing in this market.

Elsewhere, some of the defensive sectors are still too expensive, in our view, post a period where investors have been happy to pay a premium for earnings certainty, often on the back of a slightly higher than market average dividend yield. We believe if interest rates do rise gradually, then the rationale for buying such stocks will lessen further, and their overvaluation will become even more apparent.

Conclusion

So, in summary we believe that there is scope for Asian markets to go up in-line with earnings growth in 2018. The consensus earnings per share growth forecasts of 10% for 2018⁹ are dependent on a continuation of a benign global backdrop. In our view, such an environment is fertile ground for stock-picking opportunities. We believe the market valuations of many Asian companies do not reflect their ability to grow earnings, generate strong free cash flow and increase dividends.

-
- 1 Source: Bloomberg L.P., November 2017.
 - 2 The Indian market is represented by the MSCI India Index.
 - 3 Source: Bloomberg L.P., November 2017.
 - 4 Source: Emerging Advisors Group as at June 30, 2017.
 - 5 Source: People's Republic of China, International Monetary Fund, Country Report No.17/247, August 8, 2017.
 - 6 Source: CLSA, Indian Financials, Sector Outlook, October 25, 2017.
 - 7 Source: Bloomberg L.P. November 2017.
 - 8 Source: Bloomberg L.P. November 2017.
 - 9 Source: Bloomberg L.P. November 2017.

Can structural changes lead to sustained growth for Japan?



Daiji Ozawa
Chief Investment Officer and
Client Portfolio Manager,
Japanese Value Equity,
Invesco Japan

The Japanese economy and equity market regained steam in 2017. Nominal GDP, which had stagnated during the deflationary years, has finally picked up in response to Abenomics and has reached a historical high, surpassing the previous peak in 1997. The Nikkei 225 Index coincidentally rose to its highest level since 1996 against the backdrop of solid earnings growth. This performance was boosted not only by macro factors (notably the yen stabilization effort) but also by restructuring efforts over the two “lost decades” and the unique competitive advantages of Japanese companies. Looking forward to 2018, we would like to highlight three key structural changes we believe will lead to sustained growth in Japan.

multitude of scenes, from factories to logistic centres to airports. The government also needs to foster innovation to improve productivity and raise future gross domestic product (GDP) growth. In fact, Abenomics has been taking necessary steps to alleviate labour shortages. For example, we have seen gradual progress on immigration, including an introduction of permanent visas for skilled workers and extension of trainee visa terms from three years to five years. The next important move is labour market reform, including the adoption of “equal pay for equal work” (narrowing the large pay gap between regular full-time workers and part-time contractors) and a loosening of layoff restrictions. We are now hopeful about this critical reform, as the landslide election victory last October has given Prime Minister Shinzo Abe’s administration time and a mandate to push it forward.



Key takeaways

- After years of Abenomics, the Japanese economy and equity market have begun to respond.
- Earnings growth is solid, and both nominal GDP and the Nikkei 225 Index have reached 20-year highs.
- Key structural changes currently underway should assure that growth is sustained in 2018.



Nominal GDP, which had stagnated during the deflationary years, finally picked up in response to Abenomics and has reached a historical high, surpassing the previous peak in 1997.

1. The end of deflation should boost capital spending by cash-rich Japan Inc.

To cope with weakened domestic demand, Japanese companies cut wages and capital spending, reduced excess capacity and accumulated cash on their balance sheets. This created a vicious deflationary cycle over the last two decades. However, cash is no longer king – the extremely tight labour market (partially due to the aging society), coupled with healthy economic growth is building up reflationary pressures on prices and wages. In addition, the lack of investment has created capacity shortages. We believe that we have reached the tipping point – corporate Japan now needs to stop saving and spend cash on innovations in order to sort out capacity and labour constraints and grow its earnings. A good example is IT investment, especially among small to mid-sized companies. Their underinvested IT systems are currently obsolete and should be upgraded to improve efficiencies and to cope with labour shortages and the resultant rise in wages.

2. The current labour shortage is stimulating innovation and labour productivity.

Japan is indeed facing a severe labour shortage. The job-to-applicant ratio has reached 1.52, matching the level at the height of Japan’s economic boom in the 1970s.¹ The unemployment rate has come down below 3%, the lowest over two decades.² This situation has been highly motivating to corporate Japan, resulting in the development of innovations in automation across industries. Japanese companies have seen breakthroughs in robotics and automation systems that are now used in a

3. Corporate governance reform is progressing.

Corporate governance is another transformation under Abenomics. Since 2013, a series of reform measures, including the introduction of the Stewardship Code and the Corporate Governance Code, have been producing a virtuous circle of improving governance structures and increasing shareholder returns. Under pressure from the government, asset owners and asset managers have set stricter rules for proxy voting such as establishing return on equity hurdle rates, and have more proactively engaged in dialogue with company management. Under pressure from investors and even peers, company management has been prompted to improve its profitability and capital efficiency. This is another gradual but steady development in Japan.



In Japan, structural changes leading to sustained growth have gradually but steadily been taking place.

Structural changes may bring sustained growth to Japan

Structural changes that can lead to sustained growth are gradually but steadily taking place in Japan. We are finally putting an end to deflation, the green shoots of corporate and household spending are appearing and corporate governance continues to shape up. However, these structural changes both pose risks and open up opportunities for Japanese companies. From a Japanese equity investment perspective, these changes bring a considerable advantage to active managers who have insight into how these transformations evolve, how they affect companies and, most importantly, which

company management teams are capable of taking advantage of these profound changes.

1 Source: Ministry of Health, Labour and Welfare, Japan. Data as of Sept. 30, 2017.

2 Source: Ministry of Internal Affairs and Communications. Data as of Sept. 30, 2017

Emerging markets can extend their winning ways in 2018



Dean Newman
Head of Emerging Market
Equities, Invesco Perpetual

Drawing support from an improvement in fundamentals at both a macro and corporate level, emerging equity markets significantly outperformed their peers in the developed world in 2017.¹ Going forward, we expect this positive environment - favourable economic prospects, a pickup in global trade activity, sluggish inflation and competitive currencies - to provide an attractive landscape in which companies could prosper. With a supportive global macro backdrop, we are confident that companies can build on the generally stronger performances witnessed in 2017 and continue to deliver on the earnings front in 2018.

companies to invest. Lower interest rates are helping to reawaken consumer demand, with the revival in real pay accelerating in recent months. The macroeconomic picture in central and eastern Europe is also improving, with hard data in the region surpassing expectations. With growth picking up in the eurozone, we believe the region's prospects are improving.

Sector favourites

With many emerging market economies heading in the right direction, there has been an improvement in the earnings growth outlook. As usual, however, there still remains a wide dispersion between countries and sectors. Looking ahead we expect technology companies to continue to do well along with banks and some consumer discretionary firms. While we envisage earnings growth to increase at a faster pace in Asia (for example, Korean and Chinese tech firms), we are confident that companies in Brazil, South Africa and Russia will also deliver. We favour Asian tech-hardware companies and Chinese internet businesses. The former tend to generate significant free cash flow, and the latter, in our view, continue to have strong growth prospects.



Key takeaways

- Favourable prospects for emerging markets are built on strong foundations.
- We expect Asian technology companies to continue to perform well in the coming year.
- Driven by valuations, the EMEA region may provide fertile ground for stock-picking opportunities.



With a supportive global macro backdrop, we are confident that companies can build on the generally stronger performances witnessed in 2017 and continue to deliver on the earnings front in 2018.

Emerging Asia

The Chinese economy - much like the rest of emerging Asia - is expected to remain resilient, underpinned by strong domestic consumption, an export recovery and solid growth in services. However, we believe that economic growth in China may moderate in 2018 as the government pushes to rein in debt and further extend anti-pollution measures. In South Korea, increased global demand for tech products is likely to support an economy that remains in good shape despite a rise in geopolitical tension with its northern neighbour. Exports from Taiwan are also picking up steam, aided by demand for components for the coming iPhone X and other tech-related products.

Latin America

We believe the economic recovery in Latin America is gaining traction and broadening. Recent macro data releases from Brazil have been encouraging, reaffirming the growing view that the economy is finally on the mend. The Brazilian economy, in our view, is also likely to benefit from lower interest rates and waning inflationary pressures. In the near term, economic activity in Mexico might be held back by the earthquakes, but nonetheless, we believe the economy remains in good shape and should continue to grow at a steady pace in 2018. The political environment in the region is also becoming more supportive, with pro-market governments implementing business-friendly reforms.

Emerging Europe

We are seeing further evidence that a nascent economic recovery remains in place in Russia. Prudent policymaking and a strengthening rouble are providing a more stable backdrop for



Favourable economic prospects, a pickup in global trade activity, sluggish inflation and competitive currencies combine to provide an attractive landscape in which companies could prosper.

In conclusion

As active stock pickers with a long-term investment horizon, the use of valuation metrics plays an important role in our stock selection process. Although 2017 has been a good year for emerging equity markets, they still trade at a significant discount to developed markets and towards the bottom end of their long-term range (on a price-to-book basis). With companies in good health and well-positioned to deliver on the earnings front in 2018, we believe there still remains fertile ground for stock-picking opportunities. Driven by valuations, we expect that some of the most attractive opportunities may be located in the EMEA (Europe, Middle East and Africa) region, particularly Russia, Greece, Turkey, Poland, the United Arab Emirates and South Africa. That's where we will be following our judgment and putting more resources to work.

¹ Source: FactSet Research Systems. Developed markets, represented by the MSCI World Index, returned 18.21% from Jan. 1, 2017, through Oct. 31, 2017. Emerging markets, represented by the MSCI Emerging Markets Index, returned 32.26% over the same time period. Past performance is not a guarantee of future results.

All eyes on US fiscal policy in 2018, while opportunities in Europe, emerging markets could affect factor performance



Dan Draper
Managing Director
Invesco PowerShares

2017 was a momentous year on many fronts, with a new administration in the US; elections in France, Austria and Japan; a contentious Catalan independence movement in Spain; and escalating tensions between the United States and North Korea. Economic growth was increasingly synchronized in 2017, with many of the world's major economies experiencing near parallel growth rates. Economic recovery prompted central banks in Canada, Europe, the US and elsewhere to begin tapering quantitative easing campaigns. Growth and momentum paced factor performance throughout much of 2017, with small- and mid-cap variants of each doing especially well.



Key takeaways

- Synchronized economic growth was a recurring theme in 2017, with many parts of the world experiencing similar growth rates.
- Prospects appear encouraging in 2018 for the value and small-size factors, which tend to perform well in weak-dollar environments and periods of rising economic growth.
- We expect commodity price inflation to continue in 2018, which could boost factor-based portfolios with emerging market

What is factor investing?

Although it has gained prominence in recent years, factor-based investing is grounded in more than 50 years of empirical academic research. Factors are quantifiable characteristics that can help explain the risk and returns of a given asset or portfolio. We like to view factors as an investment portfolio's DNA. In the same way that DNA can explain human characteristics and behavior, factors can help explain a portfolio's risk and return profile. Some of the most well-recognized rewarded risk factors include quality, low volatility, value, small-size, momentum and dividend yield, which can be accessed through tax- and cost-efficient exchange-traded funds, or through an active, multi-factor approach.

Weak dollar environment may continue

The US dollar slumped throughout much of 2017 before gaining ground in the fourth quarter. On the heels of President Donald Trump's surprise 2016 election victory, many investors harbored visions of supercharged US economic growth and higher interest rates, which were expected to drive the dollar higher. We never subscribed to this theory. Instead, we maintained that interest rate convergence would likely limit the dollar's upside potential. This call proved to be judicious. Although gross domestic product (GDP) expanded at a healthy clip, a stalled economic agenda, coupled with global economic recovery, allowed global interest rates to begin converging relative to those in the US, pressuring the US dollar.

We expect the dollar to trade in a narrow band in 2018, with modest pressure to the downside. If growth rates in Europe outstrip those in the US, we would not be surprised to see the dollar lag in the second half of the year. Any weakness in the US dollar could benefit the value and small-size factors, which have historically outperformed in weak-dollar environments.

US fiscal policy could affect factor performance

It's still too early to determine what effect potential tax cuts would have on economic growth, or to what extent they would balloon the federal budget deficit. One of the most significant benefits of tax reform could be increased capital investment, which has been a missing link in the post-crisis recovery. If tax reform is passed and stimulates the US economy, we would expect to see continued strength in the value and small-size factors, both of which tend to perform well during periods of accelerating economic growth.

Equities: Can the bull market keep raging?

How long the equity markets can sustain their current momentum remains to be seen, but rising markets rarely die simply of old age. Despite rich valuations in some sectors, we believe US investors have largely acted rationally in response to positive economic signals. Job growth has been robust, corporate earnings have surprised to the upside - aided in part by the weak US dollar - and global interest rates are still at historically low levels.



Despite rich valuations in some sectors, we believe US investors have largely acted rationally in response to positive economic signals.

However, one consequence of strong GDP growth could be inflation - particularly if tax reform heats up an already-expanding US economy. While headline inflation in the 2.35% to 2.85% range would not be cause for concern, anything above 3.25% could lead to higher long-term interest rates - potentially creating headwinds to equity prices.

While the effects of quantitative easing in Europe may stifle the upward trend in U.S interest rates, we believe investors would still be justified in maintaining some form of low volatility factor exposure to help mitigate the downside risks that higher interest rates could pose for the equity markets. Conversely, higher interest rates could aid the value factor, particularly if financial shares, which typically screen as value, benefited from widening net interest rate margins - the difference between what banks earn in interest income and what they pay to lenders.

Fixed income: Rising rates, flattening yield curve

Monetary policy should figure prominently in the fixed income markets. Given the recent flattening of the yield curve, as defined by the yield full spectrum of US Treasuries, and the potential for higher short-term interest rates in 2018, we believe there is a case to be made for floating rate securities that adjust upward as short-term interest rates rise. On the long end of the yield curve, there are pockets of value to be found in US dollar-denominated sovereign debt and select municipal bonds. This “barbell strategy” could allow fixed income investors to capture longer-duration yield opportunities, while still defending against higher short-term rates.

Emerging markets, Europe bear watching

Emerging markets gained ground in 2017, with the MSCI Emerging Markets Index up more than 32% year-to-date through November. This growth was due in no small part to the strong performance of commodities, which tend to correlate strongly with the health of emerging market economies. We have been bullish on commodities since early 2016, and expect commodity price inflation to continue in 2018. Industrial metals have been especially strong performers, with improving global growth and the transition to renewable energy and electric cars buoying the prices of aluminum, copper and zinc.

Within the energy sector, the Organization of Petroleum Exporting Countries (OPEC) has been successful in putting a floor under crude oil prices, while many shale producers have found that they are not able to rapidly grow production at \$50 per barrel. As industrial commodities continue to rally, we believe there is a case to be made for factor strategies that include exposure to emerging markets.

In Europe, we see opportunities in select markets. Earnings multiples are generally more favorable than those in the US, which could benefit value strategies in the eurozone. While the European Central Bank has struck a more dovish tone in most recent meetings, economic growth and employment in Europe is on par to meet or possibly exceed growth metrics in the US. We believe this would make European assets more attractive and could present a compelling case for value, growth or small-size factor portfolios with European holdings.



While the European Central Bank has struck a more dovish tone in most recent meetings, economic growth and employment in Europe is on par to meet or possibly exceed growth metrics in the US.

More markets are thriving, but it's critical to understand regional nuances



Tim Bellman
Managing Director
Head of Global Research,
Invesco Real Estate

An increasingly synchronized economic upswing, the first since the global financial crisis, continues to support real estate market fundamentals around the world. More markets are now doing well, notably several in Continental Europe. This is a great positive and is creating opportunities for real estate investors.

Pricing remains competitive, however. The weight of capital chasing income-producing assets has driven yields/cap rates to historic lows in many locations. There is concern in some places, particularly in the US, that we may be getting a little late in the cycle. This has focused our attention on the importance of two global execution themes:

- A focus on bottom-up, asset-level drivers of real estate returns
- Investing with tailwinds from secular trends

Asset-level drivers

For the next few years, we believe that a hands-on, active management approach in real estate is likely to influence performance more than simple market and sector selection. This insight encourages us to look for very specific, very granular investment opportunities that are appropriately priced. This applies worldwide, but there are nuances in each region. For example:

- **Asia Pacific.** We have identified cities where we believe the historic volatility of rent cycles may be moderating, and within them specific submarkets where we believe rent growth potential remains strong this cycle. An example is office buildings in Tokyo, outside the central three wards, in places like Shinjuku or Shinagawa. We look for buildings that rent for an average of JPY25,000 per tsubo or less, with pockets of strong tenant demand.
- **Europe.** We are focusing on sustainable locations around transportation hubs, flexible assets that can adapt to rapid technological change, and mixed-use opportunities that tap into the “live-work-play” drivers of growth. Examples include Amsterdam, Munich or Berlin. We believe value-add, build- or manage-to-core strategies may offer better risk-adjusted returns than fully-let, completed buildings.
- **United States.** We favor submarket locations with low levels of new supply; this applies particularly to the apartment sector, which now has more tepid fundamentals. Locations driven by growing activity in value-creation industries or by new infrastructure development are also of interest. In competitive job markets, where tenants need to offer compelling workplaces to attract employees, we believe locations that offer a differentiated product are likely to outperform bland, commodity buildings and locations. Given all this, we believe that the differences

in real estate performance between US cities are likely to be less than the differences between assets and submarkets within those cities.



For the next few years, we believe that a hands-on, active management approach in real estate is likely to influence performance more than simple market and sector selection.

Positive secular trends

Late in the cycle, a potential way for real estate investors to mitigate cyclical risks is to invest where there are tailwinds from secular trends in demography, infrastructure and new technology.

Perhaps the most important trend is new technology and its implications for real estate. Five aspects are beginning to have a significant effect on real estate:

- **E-commerce/sharing economy.** This is creating leasing demand for logistics and data center properties but is having a more differentiated impact on office space and a largely negative impact on the retail sector.
- **Job automation and artificial intelligence.** These technologies are having a net positive effect on demand in tech-centric office locations, but a net negative impact on back office demand; experiential retail could become more virtual and change storefront demand.
- **Autonomous vehicles.** Autonomous trucks may help to reconfigure supply chains given the potential to create longer delivery routes. Longer term, the need for parking and road space could be reduced, offering the potential to transform urban areas
- **Drones.** Efficient delivery systems could reduce the need for last-mile logistics facilities, but they may also necessitate a redesign of some buildings to accommodate drone deliveries, which could provide a new source of building revenue.
- **Robots.** These could transform manufacturing and distribution processes and change today's standards for building services. For example, buildings that house robotic processes could require less light or less heat/cooling, but more secure power sources and internet connectivity.

We do not pretend to have all the answers at this stage - there will likely be winners and losers, but we believe that multi-family housing, logistics, certain types of retail assets and some specialty sectors may be the beneficiaries of trends in new technology.



Joe V. Rodriguez, Jr.
Managing Director
Head of Global Securities,
Invesco Real Estate



Key takeaways

- More real estate markets are now doing well, notably several in Continental Europe.
- Pricing remains competitive, however.
- Perhaps the most important secular trend is new



We believe that multi-family housing, logistics, certain types of retail assets and some specialty sectors may be the beneficiaries of trends in new technology.

Regional investment themes

As ever, there are important local and regional nuances within our global themes, which provide opportunities for active management within each region:

- **Asia Pacific.** Over the last year, returns have been strongest in Asia Pacific. Overall, we have upgraded our rent growth forecasts. There is a wide variety of city-level outlooks, and we are mindful of the emerging opportunity to invest with the cycle in places like Singapore and Brisbane. We favor asset enhancement strategies through lease-up opportunities or physical upgrades in places as diverse as Melbourne/Sydney and first-tier cities in China.
- **Europe.** Real estate market fundamentals are now strengthening in much of the eurozone, and there remains strong international and domestic investor demand. While we believe net operating income growth is the key to outperformance, we also believe that the creation of new and refurbished space seems to be a particular opportunity. The changing logistics sector is of particular interest. So too are the multi-family and hotel sectors.

- **United States.** The US is probably further along in its real estate cycle than other regions. Strong embedded net operating income growth is expected to drive returns despite moderating rent growth in some cities and sectors. We are focusing on asset-level drivers, considering specialty sectors that appropriately expand the universe of core real estate, and considering debt strategies that appear to offer attractive risk-adjusted returns.

Global Strategies

The outlook for real estate returns is positive and broadly similar in each region, in our view. It is important to note that there remains considerable geopolitical, political and economic policy uncertainty around the world. Given this, largely for risk reasons not return reasons, in our unlisted global core portfolios we continue to adopt a neutral weight to each region. At present there is not a sufficiently clear pattern of durable outperformance to take regional tactical positions in a relatively illiquid asset class.

Conclusion

The generally stable income return from listed and unlisted real estate continues to attract investors to the asset class. A synchronized global economic upswing is helping drive differentiated growth at an asset and submarket level, which provides fertile conditions for active real estate investment management strategies.

Why diversification may be coming back in style



Duy Nguyen
CIO, Head of Global
Advisory Solutions

The Invesco Global Solutions team builds multi-asset, outcome-oriented portfolios that are diversified by asset class (stocks, bonds and commodities) and by investment style (active, passive, factor-based and alternative strategies). Therefore, when we think about our outlook for 2018, we look for themes that can help us reduce risk and boost return potential - and we're always on the lookout for blind spots that can pose an unexpected threat.

Key issues 2018

The foundation of our process is the development of capital market assumptions - long-term forecasts for the behavior of different asset classes. Our expectations for returns, volatility and correlation serve as guidelines for our long-term, strategic asset allocation decisions.

Given our capital market assumptions, there are two main challenges we believe investors will need to navigate in 2018.

Return expectations are tepid across the markets

Our estimated returns for equities and bonds are trending lower than they were five years ago. For example, in 2012, we expected S&P 500 Index returns of more than 7.5% and MSCI EAFE returns of more than 8.5%. In 2017, those expectations have slipped to less than 6% for each. On the fixed income side, our estimates for US high-yield corporate bond returns fell from 5.67% to 4.63% and for US investment grade corporates from 2.91% to 2.50%.

- **Equities.** Equity returns are being challenged by elevated valuations - a byproduct of the extended bull market rally for stocks - and dividend yields are coming down as well. As for the third component of returns - growth - we don't expect a significant enough increase to overcome the negative effects of valuation and yield. Developed markets are feeling the pressure more than emerging markets.
 - Our equity expectations lead us to be more constructive on the UK and Asia ex-Japan, neutral in the US and eurozone, and less optimistic about Japan.
- **Bonds.** We expect credit spreads to widen, as they are generally tight going into 2018. In our view, tight credit spreads argue for incrementally trimming high yield, lengthening duration and improving credit exposure.
 - Our fixed income expectations lead us to be more constructive on US mortgage-backed securities and less so for bank loans and high yield. Due to our expectations of a flatter term structure for interest rates, we see more value in seeking higher yields by moving out on the yield curve versus taking on more credit risk, an approach that may face headwinds in the near term from widening spreads.

- Within emerging markets, our return expectations for bonds bottomed in 2016, two years after the energy/commodity sell-off in 2014 that impacted EM commodity exporters. But while our expectations have improved somewhat since then, we haven't yet seen a strong trend of improvement

We expect volatility to increase, and believe a volatility shock is likely at some point.

The level of volatility experienced in 2017 is very low versus history. Over the past five years, the 22-day moving average of the VIX index has exceeded 20 only two times - and in the first 10 months of 2017, it hasn't crossed 15. The last spike in volatility was seen briefly after the US election in November 2016.

Compare that to the prior 10 years, when the VIX moving average was rarely below 20. We expect volatility to move higher toward more historical levels. At the same time, however, we expect correlations across asset classes to decrease, boosting the potential for diversification to help reduce overall portfolio risk.

Where are the potential blind spots?

When equity markets experience the type of extended rally that we've seen over the past nine years, it's very easy for investors to lose sight of the value of diversification. Not just among equities, fixed income and commodities - which is critical - but within each asset class as well.



When equity markets experience the type of extended rally that we've seen over the past nine years, it's very easy for investors to lose sight of the value of diversification.

For example, in many of the portfolios that we analyze for our clients, we see significant exposure to credit and reduced exposure to duration within fixed income allocations. Because credit exposure has a higher historical correlation with stocks, this has led to equity-like exposure in a fixed income portfolio and removes the component of fixed income - duration - that is expected to provide a diversification benefit in periods of stress for stocks.

Another blind spot that we see is the use of alternatives. Alternative strategies by definition are designed to provide diversification, specifically during market stresses, and clearly investors in alternatives have waited a long time for this to pay off. However, given our market expectations, there may not be a more important time to own alternatives than now, when we believe the market could eventually shift from a late expansion stage to early contraction.



Key takeaways

- There are two main challenges we believe investors will need to navigate in 2018.
- Our estimated returns for equities and bonds are trending lower than they were five years ago.
- We expect volatility to increase from 2017's very low levels.

What's important to understand about alternatives is what each particular strategy is designed to do, and how to fund your allocation. Different types of alternatives are expected to outperform in different markets, and whether you redirect money from stocks or bonds to buy an alternative strategy depends on your goals. There is no one "right" way to include alternatives in a portfolio.



Given our market expectations, there may not be a more important time to own alternatives than now, when we believe the market could eventually shift from a late expansion stage to early contraction.

Stay focused on diversification

In an environment where returns are compressed, volatility is expected to be higher and correlations among asset classes are lower. It is very important to be well-diversified. That's why we believe factor awareness is very important.

Different factors are expected to outperform or underperform in different types of environments. For example, when markets are highly volatile and risky assets are underperforming, our expectation is for low volatility and quality to outperform and momentum to underperform. When equities rise rapidly, we expect value and momentum to outperform and low volatility to underperform.

We view factors as another dimension to consider when building a diversified portfolio. In our process, once we address the overall asset allocation among asset classes, we then assess our diversification across factors. Ignoring this dimension can result in a portfolio that's overweighted toward a single factor, which can potentially cause unexpected underperformance in a multi-asset portfolio.

Global markets: 10 expectations for 2018



Kristina Hooper
Chief Global Market Strategist



Key takeaways

- My base case scenario remains that the stock market will continue to perform well in 2018 - although that doesn't mean we won't experience a pullback during the year.
- Global growth and still-accommodative monetary policies are likely to be key drivers of stocks.
- We need to be mindful of the potential for downside volatility.

2017 was a positive year for the economy and capital markets. The global economy grew at a faster pace than in 2016, and risk assets also rose significantly.¹ However, investors are wondering whether the current environment will continue through 2018. Following are my 10 key expectations for the new year:

1. Upward bias for stocks globally.

As we enter 2018, there are two key drivers creating an upward bias for stocks and other risk assets globally: improving global growth and the continuation of accommodative monetary policy. These are two very powerful influences that I believe should support risk assets in general and stocks in particular. Now, that doesn't mean we won't experience a correction, particularly in the US, but it does suggest it could be more short-term in nature.

The eurozone, Japan, the US and a number of emerging markets are experiencing rising growth, and that dynamic is likely to continue well into 2018, although there will likely be hiccups along the way. In addition, earnings growth is solid and improving in most major markets; this should also be supportive for global stocks. At the same time, most of these economies are experiencing relatively low inflation, which gives central banks more flexibility to remain very accommodative.

2. More disruption and greater volatility.

Disruption - both positive and negative - is abundant right now, which increases the chance that volatility will rise from its extremely low levels.

Geopolitical disruption. Tensions are rising in a variety of places around the world, from North Korea to Saudi Arabia. However, geopolitical disruption typically doesn't impact the stock market unless it becomes extreme. And, if it does have an impact, it's usually short-term in nature. What I worry more about is the potential for countries around the world to adopt more protectionist policies in response to the geopolitical disruption created by nationalist movements intent on de-globalization. We can't forget that many economists blame protectionism for exacerbating the Great Depression in the 1930s, and we can't ignore the threat of protectionism that is very real today.

And then there is the risk of political disruption in the US stemming from lofty expectations about the success of the Trump legislative agenda, particularly tax reform and infrastructure spending. The US stock market rallied dramatically after the election, helped by an improvement in earnings but largely buoyed by legislative optimism. However, this agenda has not yet come to fruition - and, in my estimation, is in danger of not meeting initial expectations.

This creates vulnerability for the US stock market.

Monetary policy disruption. The large-scale asset purchase plans that have been a major policy tool of key central banks over the past decade are experiments that have had a very significant impact on asset prices - and market volatility. Now that central banks are starting to "normalize" this experimental monetary policy, there is the potential for disruption to capital markets. While this is not my base case, this is a distinct possibility, especially given that this potential is amplified by several different factors that all increase the odds of a policy error. First, in the US, there will be a significant number of new Federal Open Market Committee members in 2018, including the chair and the vice chair. Second, the US Federal Reserve (Fed) is utilizing two different monetary policy levers simultaneously - the federal funds rate and the Fed's balance sheet. Finally, several other major central banks are starting to normalize monetary policy, albeit ever so gently.



Disruption - both positive and negative - is abundant right now, which increases the chances that volatility will rise from its extremely low levels.

3. Lower for longer rates and a continued hunt for income.

While a number of central banks have begun to get slightly less accommodative - including the Fed, the Bank of Canada, the Bank of England (BOE) and the European Central Bank (ECB) - they still remain very accommodative in relative terms. Recent events suggest this will continue in 2018 - specifically the November 2017 nomination of Jerome Powell as the next Fed chair, given that he is likely to maintain the status quo set by outgoing Chair Janet Yellen, and the ECB's decision to keep the end date of quantitative easing open-ended. This suggests that the hunt for investment income will continue in 2018.

4. Increased debt levels.

I expect leverage, including government and private debt, to increase and become riskier in some regions in 2018.

The People's Bank of China's outgoing governor has warned repeatedly about the threat of high leverage in China's financial system and the importance of financial reforms. We will want to see if Chinese President Xi Jinping will prioritize those reforms. It will also be critical for the People's Bank of China to negotiate monetary policy effectively, given the risks of high debt levels and

the need to support the Chinese economy without causing it to overheat.

In addition, Japanese government debt is at very high levels, which will make it difficult for the Bank of Japan to normalize its monetary policy. The US also has a high level of government debt that is projected to climb much higher. On top of that, US consumer debt recently hit a new record, and defaults are rising for sub-prime auto loans. In Canada, the household debt situation is even worse - in late 2017, household debt as a percentage of disposable income was above the level reached by the US in 2007, before the start of the global financial crisis.

5. Continued UK uncertainty, with fatter tails likely.

I believe the odds are increasing that there will be an extreme outcome to the Brexit negotiations - either a pre-Brexit relationship between the EU and UK, or no relationship at all. The longer it takes to reach an agreement, the more likely it is that companies begin to relocate. In addition, the UK faces another headwind to its economy: The BOE decided in November to raise rates for the first time in more than a decade. While there is no strong growth that the BOE needs to moderate, it is attempting to move the pound sterling higher in order to combat the relatively high level of inflation that the UK is experiencing as a result of Brexit-related currency shifts. However, the BOE intimated in its decision that it is not on any kind of significant tightening path, so sterling didn't show the strength that the BOE hoped for. This is problematic and suggests the potential for a stagflation scenario. We will want to follow sterling and inflation closely.

6. A focus on critical economic reforms.

French President Emmanuel Macron has embarked on ambitious labor market reforms for his country. This has already inspired much-improved business sentiment that could result in higher capital expenditures. Macron also intends to take a lead on reforms for the European Union, which are vital to future stability and growth in the EU. In addition, Indian Prime Minister Narendra Modi is in the process of a transformative reform agenda for his country. In 2017, India enacted a Goods and Services Tax, a de-monetization plan, a new bankruptcy law, an inflation-targeting framework for its central bank, and a Real Estate Regulation Act. India's growth is moderating, and the country needs continued and more successful reforms in order for growth to accelerate.

7. The need for infrastructure.

A number of major economies are desperately in need of infrastructure spending - particularly the United States and India. Infrastructure is a priority focus for India going forward, both rural (housing, roads, electricity) and national. In the US, there is a need to replace and rebuild a variety of different types of infrastructure, including water pipes, bridges and tunnels, and telecommunications structures. Infrastructure can be a very powerful form of fiscal stimulus in both the short term and the longer term. I

expect countries that actually spend wisely on infrastructure to see a significant tailwind to economic growth and benefits to several different sectors (industrials, materials, telecommunications). Conversely, failure to focus on infrastructure next year may have negative implications.

8. The potential for currency surprises.

This past year saw significant and unexpected weakness for the US dollar, as diminished growth expectations and political setbacks weighed on the currency. In addition, emerging markets currencies have reacted to recent political developments. I would expect more surprises and fluctuations in 2018. A number of central banks will likely continue to slowly tighten monetary policy, which should, depending on timing, cause changes in the relationships of different currencies. A less-than-fully synchronized global economic recovery could also contribute to currency fluctuations.

9. A mixed outlook for commodities.

While the US dollar weakened, the price of oil did not rise significantly in 2017 - despite a rise in prices for industrial metals. This suggests that relationships are changing among different commodities, with metals prices more greatly impacted by emerging market demand. I expect agricultural commodities to benefit from improving global demand, and gold to move based on several different influences, particularly the fear trade and the inflation trade. In general, I expect a mixed performance by commodities next year, but with a relatively lower correlation to equities and fixed income.



The Trump legislative agenda has not yet come to fruition - and, in my estimation, is in danger of not meeting initial expectations. This creates vulnerability for the US stock market.

10. Possible rotation in leadership.

We need to recognize that this is still a very macro-driven environment. Political developments - specifically the success or failure of key legislative initiatives such as tax reform or infrastructure spending - will likely cause relatively swift rotations in leadership between growth and value in the US stock market for the year. We are also likely to see rotations in leadership among asset classes, styles and sectors, as the global economic recovery will not be perfectly synchronized, favoring certain regions and asset classes at different times.

Market outlook

In summary, despite all the outstanding risks, my base case scenario remains that the stock market will continue to perform well in 2018. However, given rising risks to capital markets, we need to be mindful of the potential for downside volatility.

¹ Risk assets are securities, such as stocks or certain types of bonds, that carry a degree of risk.

Important information

This document is intended only for Professional Clients and Financial Advisers in Continental Europe, Qualified Investors in Switzerland and Professional Clients in Dubai, the Isle of Man, Jersey, Guernsey and the UK. It is not intended for and should not be distributed to, or relied upon, by the public or retail investors.

Continental Europe is defined as Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Liechtenstein, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Past performance is not a guide to future returns. Forecasts are not reliable indicators of future performance.

Where individuals or the business have expressed opinions, they are based on current market conditions, they may differ from those of other investment professionals and are subject to change without notice.

This document is marketing material and is not intended as a recommendation to invest in any particular asset class, security or strategy. Regulatory requirements that require impartiality of investment/investment strategy recommendations are therefore not applicable nor are any prohibitions to trade before publication. The information provided is for illustrative purposes only, it should not be relied upon as recommendations to buy or sell securities.

This investment outlook contains general information only and does not take into account individual objectives, taxation position or financial needs. Nor does this constitute a recommendation of the suitability of any investment strategy for a particular investor. As with all investments there are associated risks. Please obtain and review all relevant materials carefully before investing. Asset management services are provided by Invesco in accordance with appropriate local legislation and regulations.

- Issued in **Austria** by Invesco Asset Management Österreich-Zweigniederlassung der Invesco Asset Management Deutschland GmbH, Rotenturmstraße 16-18, A-1010 Wien.
- Issued in **Belgium** by Invesco Asset Management SA Belgian Branch (France), Avenue Louise 235, B-1050 Bruxelles, Belgium.
- Issued in **Ireland** and the Isle of Man by Invesco Global Asset Management DAC, Central Quay, Riverside IV, Sir John Rogerson's Quay, Dublin 2, Ireland. Regulated in Ireland by the Central Bank of Ireland.
- Issued in **Denmark, Finland, France, Greece, Luxembourg, Norway and Portugal** by Invesco Asset Management SA, 16-18 rue de Londres, 75009 Paris, France.
- Issued in **Dubai** by Invesco Asset Management Limited, PO Box 506599, DIFC Precinct Building No 4, Level 3, Office 305, Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority.
- Issued in **Germany** by Invesco Asset Management Deutschland GmbH, An der Welle 5, D-60322 Frankfurt am Main.
- Issued in **Italy** by Invesco Asset Management SA, Sede Secondaria, Via Bocchetto 6, 20123 Milan, Italy.
- Issued in **Jersey and Guernsey** by Invesco International Limited, 2nd Floor, Orviss House, 17a Queen Street, St Helier, Jersey, JE2 4WD. Regulated by the Jersey Financial Services Commission.
- Issued in **The Netherlands** by Invesco Asset Management S.A Dutch Branch, Vinoly Building, Claude Debussylaan 26, 1082 MD Amsterdam, The Netherlands.
- Issued in **Spain** by Invesco Asset Management SA, Sucursal en España, C/ GOYA, 6 - 3º, 28001 Madrid, Spain.
- Issued in **Sweden** by Invesco Asset Management SA, Swedish Filial, Stureplan 4c, 4th Floor 114 35 Stockholm, Sweden.
- Issued in **Switzerland** and Liechtenstein by Invesco Asset Management (Schweiz) AG, Talacker 34, CH-8001 Zurich.
- Issued in the **UK** by Invesco Asset Management Limited, Perpetual Park, Perpetual Park Drive, Henley-on-Thames, Oxfordshire RG9 1HH, UK. Authorised and regulated by the Financial Conduct Authority. Invesco Perpetual is a business name of Invesco Asset Management Limited, and forms part of Invesco Ltd.

CEUK1121/2017