

The investment outlook for 2018

It ain't over till the central banks sing

December 2017



AUTHOR



Karen Ward
*Managing Director,
 Chief Market Strategist
 for the UK and Europe*

IN BRIEF

- The macro environment in 2017 provided fertile ground for most asset markets. The recovery strengthened by sector and geography, and while deflation risks receded, inflation failed to accelerate enough to spoil the party. Central banks committed to maintain accommodative policy for the foreseeable future, pleasing equity and bond investors alike. The question on most investors' minds is: "is this too good to last?"
- We find little cause for imminent concern. The recovery may be "old," but there is still scope for the expansion to broaden both through Europe and the emerging world. If anything, macroeconomic risks are receding and there is even upside potential if productivity starts to pick up alongside trade and investment. Even in the US, where the cycle is more mature, the leading indicators remain strong and point to robust corporate earnings.
- While the Federal Reserve (Fed) will continue to slowly lift the Fed funds rate higher, longer-term rates are likely to be constrained by ongoing accommodative policy at both the European Central Bank (ECB) and Bank of Japan (BoJ). Do not underestimate the impact of the BoJ's extraordinary commitment to fix its 10-year government bond yield at 0%. Forget "don't fight the Fed"; it is the BoJ we will be keeping an eye on.
- Overall, we are more concerned that this "Goldilocks" expansion becomes "too hot," rather than "too cold," in 2018. We see little reason to shift out of a portfolio skewed towards risk assets. Given everything seems expensive, we still prefer equities over credit over government bonds. Cash is expected to produce a negative real return for yet another year.
- There are still things to be wary of. In particular, no one knows for sure whether inflation is dead or merely sleeping. Similarly, central banks could get tetchier about whether they are repeating the errors of the 2000s. A punchier uptick in inflation and/or more hawkish central banks would result in significant market moves. To insure against such shifts, investors should think not just about the diversification, but also the liquidity of their portfolio. It might also be worth building positions in assets less vulnerable to inflation and higher yields, such as financials and value sectors over growth. After a period of exceptionally low volatility, a more nimble approach to asset management may well be required this year.

THE RECOVERY MAY BE OLD, BUT IT STILL HAS LEGS

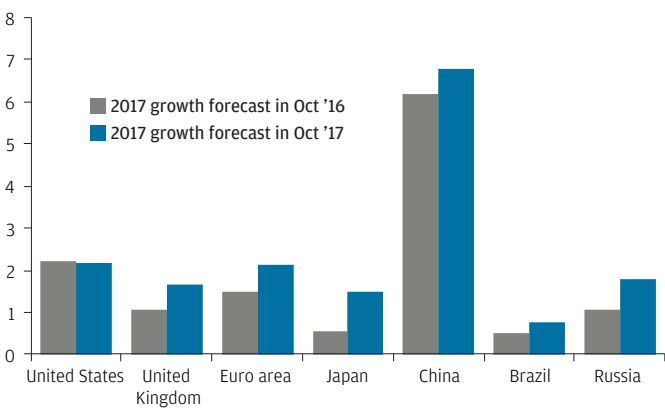
In 2018, the global expansion will be 10 years old. Even for those investors who have fond memories of the 1990s and 2000s expansions, this one is starting to feel a bit long.

However, we believe that with growth broadening by sector and geography, the risks of global recession are in fact receding. Most major nations surpassed the forecasts made for them at the start of the year (Exhibit 1).

In 2017, growth surpassed expectations in most major economies

EXHIBIT 1: GDP GROWTH EXPECTATIONS FOR 2017

% change year on year



Source: IMF World Economic Outlook, J.P. Morgan Asset Management. Data as of 11 December 2017.

In the developed world, low unemployment, cheap and abundant credit, and low inflation continue to support moderate consumer spending. What's more, companies across a multitude of sectors are now more confident about expanding. Based on the latest IMF forecasts, business investment in the developed world not only expanded at the fastest pace in 2017, but also that expansion was synchronised across the G7 for the first time since the Global Financial Crisis.

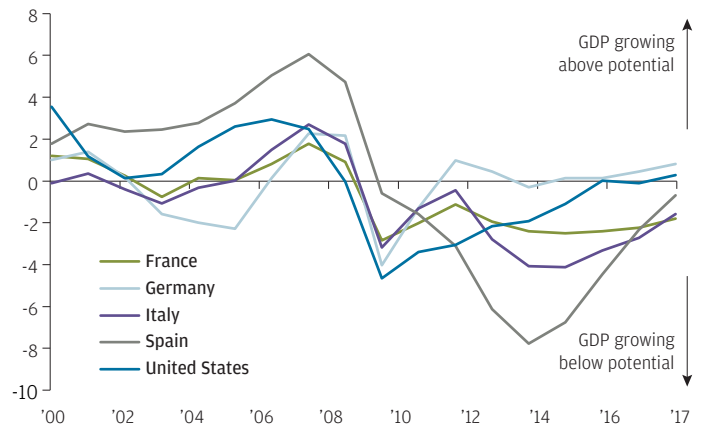
As populist pressures persist in the developed world, governments are feeling under pressure to spend and boost their popularity. Indeed, in recent days, the US administration has made considerable progress towards its ambitions for tax reform, which should support corporate earnings and the take-home pay of lower- and middle-income households. Whether these tax cuts will kick in in 2018 or be delayed until 2019 is yet to be seen.

We are also likely to see incrementally more generous policies across Europe. As a case in point, the recent UK budget included a number of additional areas of spending, with the need to balance the books falling down the list of political priorities.

Most European countries are still operating below potential

EXHIBIT 2: GDP OUTPUT GAPS

Actual GDP minus potential GDP as a % of potential GDP



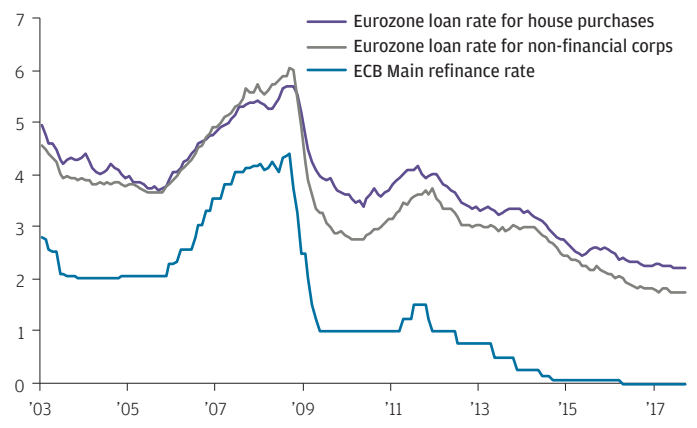
Source: IMF World Economic Outlook, J.P. Morgan Asset Management. Data as of 11 December 2017.

On aggregate, the developed world outlook remains robust. Of course, some economies are further along the cycle than others. The eurozone economy, having double-dipped with the sovereign debt crisis in 2012, is at least two years behind the US cycle. Countries like France, Italy and Spain are still an enormous way off their pre-crisis trend (Exhibit 2). Ultra-loose monetary policy is still filtering through to the lending rates on the high street, which should help activity recover (Exhibit 3).

The ECB's monetary efforts are only now reaching borrowers

EXHIBIT 3: EUROZONE LENDING CONDITIONS

% interest



Source: European Central Bank, Thomson Reuters Datastream, J.P. Morgan Asset Management. Data as of 11 December 2017.

Germany, having avoided the accumulation of debt in the 2000 upswing, is having a particular moment in the sun. The German IFO business survey climbs to new highs practically every month. And while the euro has strengthened recently, it is not enough to provide a major headwind to growth, or corporate earnings, at this stage.

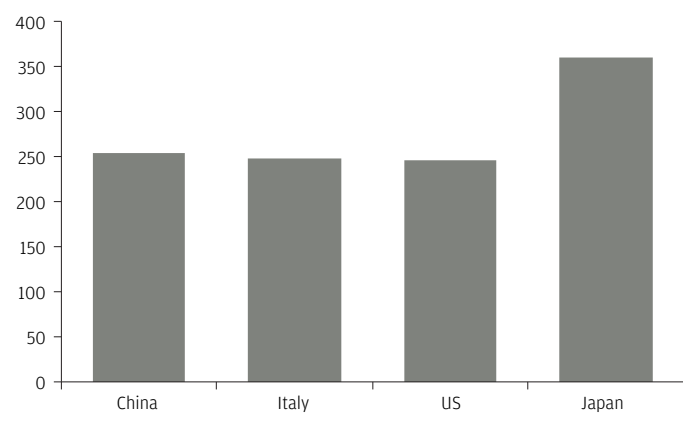
EMERGING MARKETS ARE BACK ON TRACK

Markets also appear to be marginally more confident in the outlook for China—and rightly so, in our view. During the last few years, much has been made of the risks posed by China’s accumulation of corporate debt. Indeed, some have gone as far as to say Chinese debt is the next subprime crisis in the making. But it is important not to analyse China in the same way as a Western economy. China is a command economy, and the distinction between the government, banks and corporates is often less clear cut. When the Chinese authorities want to expand activity, projects are often conducted by other affiliates, but the final liability still ends with the central government. So when comparing debt in China to other countries, we should consider the total debt (**Exhibit 4**) to avoid comparing apples and pears.

China will more easily grow out of its debt than the West

EXHIBIT 4: TOTAL DEBT

Total debt as % of GDP



Source: BIS, Thomson Reuters Datastream, J.P. Morgan Asset Management. Data as of 11 December 2017.

From an aggregate debt perspective, debt in China is on a par with that of the US and Italy and below that of Japan. Now, remember that China is still at a very early stage of development. Only 56% of its population lives in urban areas, compared to more than 80% in the US and UK. Its potential growth rate should therefore be considerably higher than the developed world during this period of economic convergence.

Put differently, would you lend an equivalent mortgage to a young graduate with a hot career ahead or someone nearing the end of their career? It is also worth pointing out that Chinese borrowing is internally funded by domestic savings and the capital account is still largely closed; there is no external lender to pull the plug, even if there were doubts about repayment, as there were with subprime.

Rather than imploding, as some warned at the start of the year, Chinese activity accelerated over the course of the year, so much so that the Chinese authorities have recently tightened policy, which should serve to slow growth slightly in 2018, although it should remain in excess of 6%.

Greater confidence in the outlook for China is supporting commodity prices. The recent behaviour of Russia and OPEC has also served to lift oil prices, which will help the emerging world’s commodity exporters. The recovery in global business investment will also support demand for the tech exporters in East Asia. Overall, the outlook for emerging markets is looking stronger than it has for a number of years. This, in turn, should support Europe’s capital goods exporters, such as Germany and the Netherlands.

THERE ARE STILL UPSIDE RISKS: PRODUCTIVITY COULD PICK UP

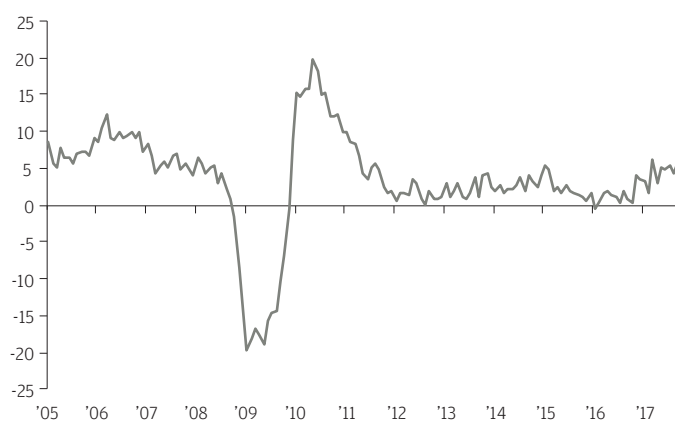
While many analysts are focused on indicators that will predict the cycle rolling over, there is one late-cycle upside feature of the recovery that we have not seen yet—a revival in productivity. The absence of productivity growth across much of the developed world has been an ongoing disappointment. Given that stronger productivity essentially enables firms to produce more for less, it is clear why this would provide fuel for roaring markets. It not only helps boost corporate profitability, but also would make central banks more confident that supply is expanding, and, in turn, more relaxed about incipient inflationary pressures.

Why be optimistic about this? First, productivity does tend to take a long time to recover after a financial crisis in which the supply side of the economy gets particularly battered. Second, as already discussed, in 2017 both business investment and world trade accelerated, which tends to be associated with stronger productivity (**Exhibits 5A & 5B**).

The trade and investment recovery should coincide with better productivity

EXHIBIT 5A: GLOBAL EXPORT GROWTH

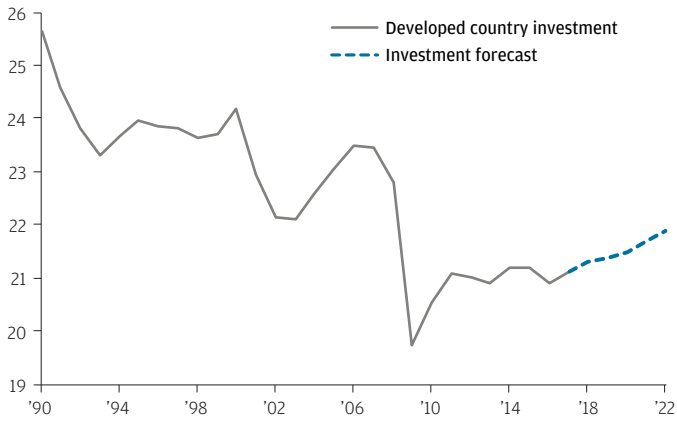
% change year on year



Source: BIS, Thomson Reuters Datastream, J.P. Morgan Asset Management. Data as of 11 December 2017.

EXHIBIT 5B: DEVELOPED ECONOMIES INVESTMENT

% of developed economies' GDP



Source: IMF World Economic Outlook, J.P. Morgan Asset Management. Data as of 11 December 2017.

POLITICAL RISKS ARE LESS TROUBLING THAN LAST YEAR

This time last year populism threatened the overhaul of the political status quo in a number of countries. The final ballot results turned out to be much less troubling. There are still hurdles ahead, though we do not expect any of them to dominate markets in the way of those in 2017.

At the time of writing, Germany’s Chancellor Merkel is still trying to form a coalition government. The only viable option ahead is a Grand Coalition, aligning her Christian Democrat (CDU) party to the Social Democrats (SPD). The SPD is likely to demand reform in the health insurance system, an increase in part-time workers rights and more fiscal spending for such a partnership. The market would most likely welcome such a shift in fiscal policy. If, however, talks fail and Merkel is deterred by the legislative challenges of a minority government aligned with the Greens, then new elections look possible in April 2018. This would leave a vacuum at the top of the eurozone leadership until at least the summer of next year.

The Italian elections, which must be held by May, have the potential to create more volatility given support for the anti-establishment parties remains strong. However, we choose to be guided by the experience of 2017 where, at the ballot, voters were persuaded by the economic recovery to stick with the mainstream parties. The key risk for Italy is a fragmented result, which would reduce the chance of major reform. But this is an old story for Italy, with potentially limited concern for markets.

The Brexit negotiations may also be reaching a more critical phase. Following the triggering of Article 50 in March 2017, we are now nine months into the two-year official deadline to complete the exit process. The pressure to proceed on this timeline may diminish, however, if both sides agree to a transition arrangement.

This seems the most likely scenario, particularly given the recent conclusion of phase one of the negotiations, which settled the exit bill, citizens’ rights and the Northern Ireland border. Both sides have approached the negotiations recently in a constructive manner. It appears the EU is more confident following the political results in 2017 and see that alongside the eurozone recovery, support for the euro is rising. It may feel less inclined to make an example of the UK with a particularly punitive deal and instead wish to avoid near-term supply chain dislocations that could result from a “no deal” scenario.

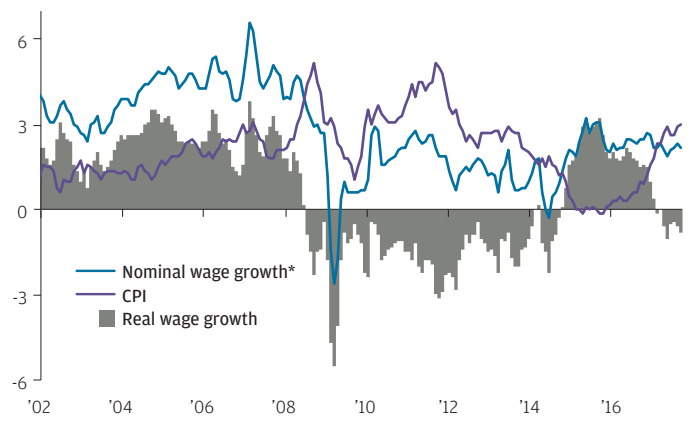
That is not to say the discussions will not remain tense. But the EU has been in some sort of apparent crisis for six years, and we should remember what we learned during that time about EU political strategy. There was political blustering and brinkmanship. There were numerous column inches dedicated to impending doom. But at the end of the day, economics overruled the politics and solutions were found. The solutions were neither perfect nor definitive; indeed, they often deferred the difficult decisions to further down the road. But ultimately, a way was found to “muddle through.”

Despite all the noise, the negotiations may just continue in the background for a long time. In which case, Brexit fatigue may set in among investors, with more emphasis placed on the day-to-day data. If sterling were to hold on to its recent appreciation, then the squeeze on real wages, which depressed consumption in 2017, may ease significantly (Exhibit 6). If business investment is not entirely paralysed, then alongside less restrictive fiscal policy, an ongoing modest recovery seems feasible.

If sterling holds on to its recent gains, the pressure on UK real wages will ease

EXHIBIT 6: UK REAL WAGE GROWTH

% change year on year



Source: Bloomberg, ONS, J.P. Morgan Asset Management. *Nominal wages include bonuses. Data as of 11 December 2017.

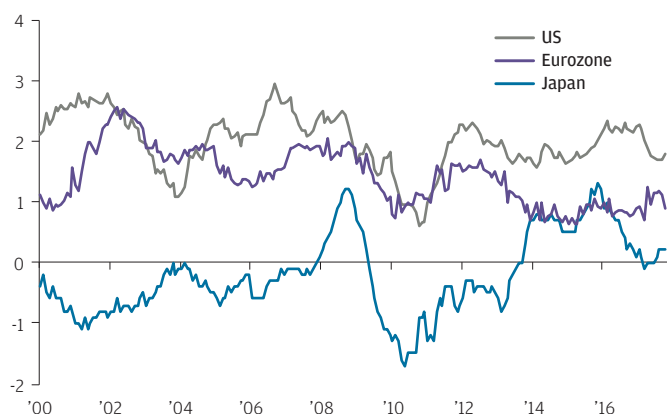
SO WHERE IS INFLATION?

As economic activity marches on, the slack in the economy continues to be eroded. Unemployment is at a 17-year low in the US, and multi decade lows in the UK, Germany and Japan. One might have expected workers in these economies to feel emboldened enough to ask for more pay. And yet inflation in the labour and goods markets is nowhere to be seen (Exhibit 7).

Despite strong growth, core inflation remains moderate

EXHIBIT 7: CORE INFLATION

% change year on year



Source: BLS, Eurostat, Japan Ministry of Internal Affairs & Communications, Thomson Reuters Dataream, J.P. Morgan Asset Management. Data as of 11 December 2017.

The core of all economic theory is that more demand relative to supply creates higher prices. Without this basic foundation, we economists are truly lost at sea! Central banks are puzzling over a number of theories: maybe there is hidden slack in the economy? Maybe globalisation or technological change is keeping prices low? Or maybe, after such a long recession, people have forgotten to ask for more pay each year and inflation has got stuck in the process?

The truth is probably some combination of these factors. We do think that globalisation has had a significant structural impact. Outsourcing—or the threat of it—has reduced the bargaining power of developed world workers. When China joined the WTO in 2001, global labour supply effectively doubled. China’s capacity is not yet absorbed, not to mention the potential inclusion of large population countries in Africa and East Asia such as Bangladesh and Nigeria. Given exchange rates are not freely adjusting to absorb the differential in labour costs, the downward impact of globalisation on developed world inflation still has further to run.

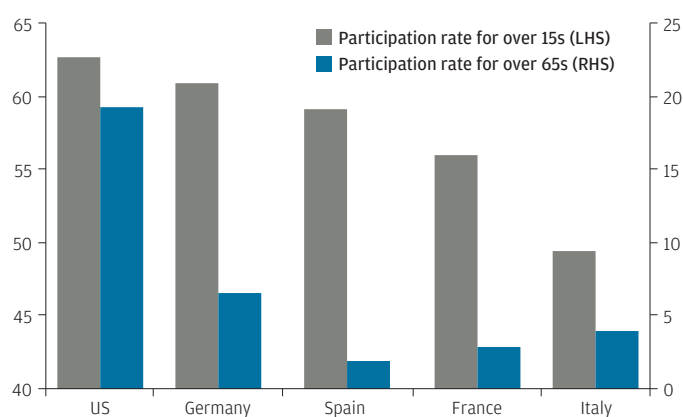
At the same time, there are more temporary factors that have most likely played a role in lowering US inflation, such as the low oil price and strength of the dollar through 2015. “Hidden unemployment”—the workers that temporarily left the labour market in the depths of the recession—also served to muddy the relationship between headline unemployment and wage growth. As these influences diminish, some pick-up in US inflation seems likely over the course of the year.

By contrast, underlying inflation in Europe is likely to remain subdued, which will support corporate earnings and encourage loose monetary policy for at least the next couple of years. Not only is measured unemployment still above pre-crisis levels in most countries, these unemployment rates underestimate the amount of slack in the economy. Participation rates in most European countries are still very low (Exhibit 8). As the labour market tightens, more people are likely to be tempted into employment, particularly if structural reform reduces the generosity of social safety nets and the prospects for early retirement. The assumption most people make—that the demographics will serve as a drag on activity in the eurozone—may thus turn out to be completely wrong.

There is a lot of hidden slack in the European labour market

EXHIBIT 8: PARTICIPATION RATE

% of population



Source: OECD, J.P. Morgan Asset Management. Data as of 11 December 2017.

NEVER MIND THE FED; IT’S THE BOJ YOU NEED TO WATCH

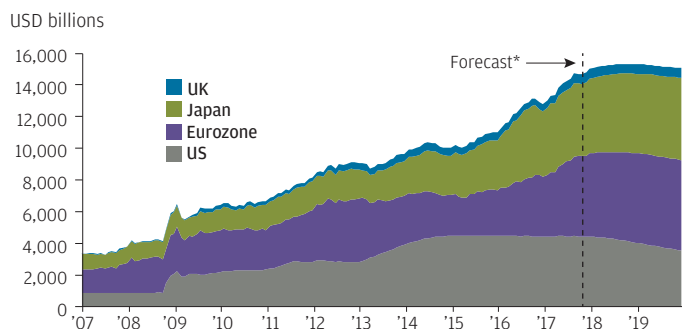
As central banks toy with the candidate explanations for low inflation, they are in no hurry to normalise monetary policy.

This might seem contrary given the Fed is raising rates and 2018 will be the first year it starts to reduce its balance sheet, but the current plan to withdraw stimulus is extremely gradual. By the end of the year, Fed funds is expected to be 100bps from where it is today, but that will still leave it roughly 400bps below the pre-crisis peak.

Moreover, we stress it is really important not to just focus on the Fed, but to instead consider the combined monetary behaviour of the Fed, the ECB, the Bank of England and, in particular, the Bank of Japan (Exhibit 9A).

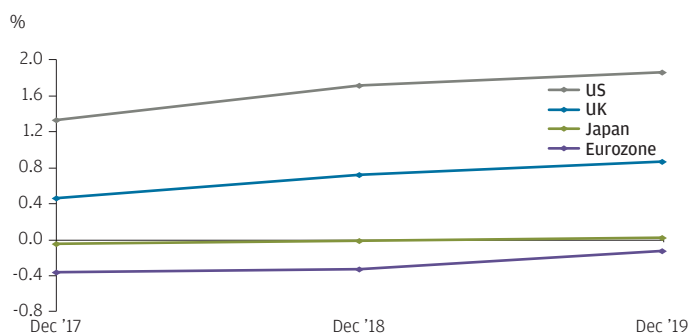
Combining the “big 4” central banks, balance sheets are still expanding through 2018

EXHIBIT 9A: CENTRAL BANK BALANCE SHEETS



Source: Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), US Federal Reserve (Fed), Thomson Reuters Datastream, J.P. Morgan Asset Management. *Balance sheet forecast assumptions: BoE to have zero net purchases until the end of '19; BoJ to have an ann. pace of 60tn yen until the end of '17, then a reduction in the ann. monthly purchase rate by 10tn yen each quarter until Oct '18, when purchases continue at an ann. monthly pace of 20tn yen; ECB to keep purchases at EUR 60bn per month from Nov '17 to Dec '17 and then reduce monthly purchases to EUR 30bn in Jan '18, then to EUR 15bn in Oct '18 and to zero asset purchases in Apr '19; Fed forecast is based on a monthly reduction of USD 10bn, starting in Oct '17 and then stepping up the monthly reduction by a further USD 10bn in each subsequent quarter until reaching a maximum of USD 50bn reduction per month, depending on the monthly maturity schedule of the balance sheet. Data as of 11 December 2017.

EXHIBIT 9B: MARKET EXPECTATIONS FOR POLICY RATES



Source: Bloomberg, J.P. Morgan Asset Management. Expectations calculated using OIS forwards. Data as of 11 December 2017.

The ECB may have announced plans to start reducing its purchases, but it is still planning on adding to its balance sheet through 2018. Moreover, it has promised not to raise rates before it has officially stopped its quantitative easing (QE) programme. Based on its current timetable, that would point to the first rate rise in 2019.

The BoJ has never really managed to step meaningfully away from the zero interest bound after its recession in the early 1990s. In its latest effort to stimulate inflation, the BoJ committed to hold the government's 10-year government bond yield at 0%—whatever the cost to its balance sheet. If expectations of nominal growth rise in Japan and people want to sell Japanese bonds, the BoJ's purchases force investors to search for yield in other markets. In turn, this supports longer-term government bond prices globally and depresses global fixed income yields.

When you combine the commitments made by the major central banks, policy is expected to remain extraordinarily accommodative (Exhibits 9A & 9B). Assuming central banks honour the guidance they have given, our base-case scenario is for longer-term yields to grind slightly higher, but to remain very low on a historical basis.

HAS THE BOND CURVE LOST ITS POWER TO PREDICT?

Before thinking about what all this means for portfolios, it is worth dwelling on one further issue with regard to the government bond curve.

With longer-term rates remaining low—and Fed funds rising—the US curve is beginning to flatten. This is starting to cause concern amongst investors who have relied on a flattening and then an inverting bond curve to predict a downturn in stock prices.

Pre-quantitative easing this was a perfectly logical argument to follow. When long-term rates were anchored at a rate that was broadly consistent with neutral policy (plus a term premium), if the curve flattened it meant policy was no longer stimulative. When the curve inverted, it meant central banks put the brakes on: time to expect a slowdown, if not a recession.

If, however, long-term rates are anchored by QE, or even influenced significantly by nominal demand in a completely different region, then this argument could break down entirely. The curve could invert with rates still at an accommodative rate relative to economic fundamentals across maturities. QE has left us in unprecedented times, and we cannot be sure that the yield curve will prove to be the reliable recession indicator that it has in the past.

Japan is a case in point. The Japanese yield curve is now almost pancake flat. That has not served to depress lending, activity or the equity market.

IMPLICATIONS FOR MARKETS

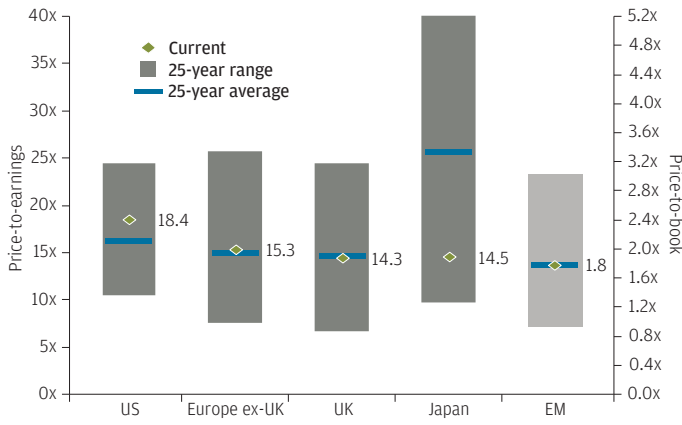
Putting all this together, we see no definitive reason to begin shying away from risk assets, certainly not towards government bonds, or cash, which is likely to have a negative real return for the ninth year in a row. And as a Global Market Strategist from our team in Asia recently phrased it, we have to remember we are shopping in an expensive mall. After all, we do not have the option of switching to another asset class that is obviously cheap.

The macro fundamentals are the main underpinnings to this view. Even in the US where the economic cycle is more advanced, the lead indicators do not suggest that the economic cycle is about to turn. Consumer confidence, employment and business sentiment all remain robust. And if global productivity begins to rebound alongside world trade and investment, this would fuel the idea that the economy can continue to expand without inflationary—or monetary policy—consequences.

And whilst equity price/earnings (P/E) ratios have risen above historical norms, they do not appear overly stretched, particularly in Europe (Exhibit 10A). Nor do analysts' earnings expectations for either the US or Europe look particularly overoptimistic or out of kilter with fundamentals.

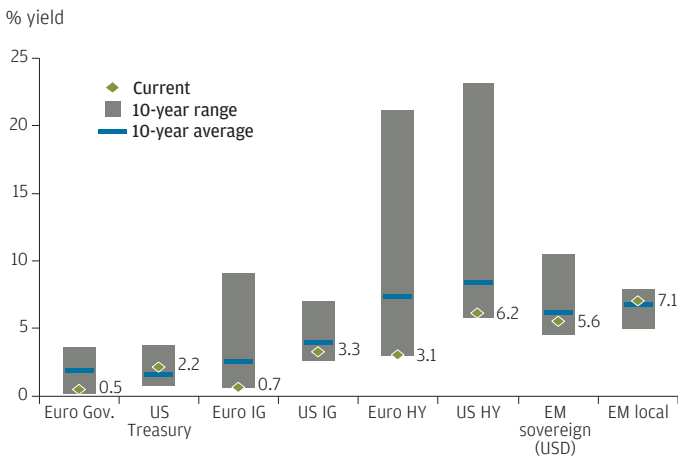
Valuations are not overly stretched in equities

EXHIBIT 10A: GLOBAL EQUITY VALUATIONS



Source: MSCI, Standard & Poor's, Thomson Reuters Datastream, J.P. Morgan Asset Management. Valuations refer to NTMA P/E for Europe ex-UK, US, Japan, UK and P/B for emerging markets. Valuation and earnings charts use MSCI indices for all regions/countries, except for the US, which is the S&P 500. Data as of 11 December 2017.

EXHIBIT 10B: FIXED INCOME YIELDS



Source: Bloomberg Barclays, BofA/Merrill Lynch, FactSet, J.P. Morgan Economic Research, J.P. Morgan Asset Management. Yields are yield to maturity. Euro Gov.: Bloomberg Barclays Euro Agg. Government; US Treasury: Bloomberg Barclays US Agg. Gov. - Treasury; Euro IG: Bloomberg Barclays Euro Agg. - Credit - Corporate; US IG: Bloomberg Barclays US Agg. Corporate - Investment Grade; Euro HY: BofA/Merrill Lynch Euro Non-Financial; US HY: BofA/Merrill Lynch US High Yield Constrained; EM sovereign (USD): J.P. Morgan EMBI+ index; EM local: J.P. Morgan GBI-EM index. Data as of 11 December 2017.

It is also worth remembering that even in the equity markets that do appear a little more stretched, this has not been due to equal gains across the board. The tech sector has done a lot of the heavy lifting in taking the aggregate price index higher.

Within equity markets, we are more inclined towards Japanese and continental European stocks.

Even if we are wrong on the fundamentals, we also remain mindful of the fact that we often have more time to shift position than we think. De-risking too early can be more costly than being a little too late when we consider that the final 12 months of past US equity rallies have delivered average returns of 25% vs. drawdowns of 14% in the first six months of things turning sour.

RISKS TO MONITOR

While this all sounds wonderfully benign, we should be prepared to be nimble in 2018. Bear in mind that as 2017 draws to a close, two mammoth questions remain unanswered: is inflation really dead? And will central banks change their minds about how gradually stimulus should be removed?

Unemployment is creeping ever lower, and oil prices were up 15% year to date at the time of writing. This could lead to a more significant pick-up in inflation.

Remember that bond investors are not being compensated for inflation risk in the way that they were pre-crisis, as investors remain primarily concerned about the downside risks: debt, deflation and unconventional policy forcing yields lower (Exhibit 11). If this balance of risks were to change, the impact on global longer-term yields could catch us out.

Bond investors are not being compensated for inflation risk

EXHIBIT 11: US 10-YEAR TREASURY TERM PREMIUM



Source: Bloomberg, J.P. Morgan Asset Management. Adrian Crump & Moench measure of the US 10-year treasury term premium. Data as of 11 December 2017.

We should therefore continue to monitor all inflationary pressures very carefully, including oil prices, wages and core inflation. And keep an eye on nominal growth and the wage rounds in Japan, even if Japanese assets are not directly in your portfolio. In our view, the BoJ is having more of an influence on global bond yields than people are giving it credit for.

We will also be poring over the central banks' communications. Whilst central bank policies have not yet delivered too much goods inflation, they have certainly boosted asset prices. High-profile institutions, like the Bank for International Settlements, are becoming increasingly vocal in warning about the risks of such loose policy on longer-term financial stability. One only has to consider the 1,700% rise in the price of Bitcoin over the past year to wonder if they have a point. Central banks are walking the fine balance between a need to stimulate activity and meet their inflation targets and not making all the mistakes of the 2000s boom.

These are the key risks we will be monitoring, on top of well-known concerns such as the potential for conflict with North Korea.

While these risks might have a relatively low probability, the market impact could be significant. And so on top of a well-diversified strategy, investors should think about the liquidity of their portfolio: if the tide changes, you will want to be able to shift position quickly. And there are certain trades that will work better in an environment of rising inflation and bond yields. The most obvious would be financials stocks and value stocks over growth.

Building towards such a portfolio, one can maintain exposure to the upside as the good times continue to roll, while providing some peace of mind if the story changes.

The Market Insights team looks forward to working with you towards a prosperous 2018.

GLOBAL MARKET INSIGHTS STRATEGY TEAM

Americas

Dr. David P. Kelly, CFA
*Managing Director
 Chief Global Strategist
 New York*

Julio C. Callegari
*Executive Director
 Global Market Strategist
 São Paulo*

Samantha M. Azzarello
*Vice President
 Global Market Strategist
 New York*

David M. Lebovitz
*Vice President
 Global Market Strategist
 New York*

Gabriela D. Santos
*Vice President
 Global Market Strategist
 New York*

Alexander W. Dryden, CFA
*Associate
 Global Market Strategist
 New York*

John C. Manley
*Associate
 Market Analyst
 New York*

Abigail B. Yoder, CFA
*Associate
 Market Analyst
 New York*

Jordan K. Jackson
*Analyst
 Market Analyst
 New York*

Tyler J. Voigt
*Analyst
 Market Analyst
 New York*

Europe

Karen J. Ward
*Managing Director
 Chief Market Strategist, UK & Europe
 London*

Manuel Arroyo Ozores, CFA
*Executive Director
 Global Market Strategist
 Madrid*

Tilman Galler, CFA
*Executive Director
 Global Market Strategist
 Frankfurt*

Lucia Gutierrez Mellado
*Executive Director
 Global Market Strategist
 Madrid*

Vincent Juvyns
*Executive Director
 Global Market Strategist
 Luxembourg*

Maria Paola Toschi
*Executive Director
 Global Market Strategist
 Milan*

Michael J. Bell, CFA
*Vice President
 Global Market Strategist
 London*

Nandini L. Ramakrishnan
*Associate
 Global Market Strategist
 London*

Jai Malhi
*Associate
 Market Analyst
 London*

Ambrose Crofton
*Market Analyst
 London*

Asia

Tai Hui
*Managing Director
 Chief Market Strategist, Asia
 Hong Kong*

Kerry Craig, CFA
*Executive Director
 Global Market Strategist
 Melbourne*

Yoshinori Shigemi
*Executive Director
 Global Market Strategist
 Tokyo*

Marcella Chow
*Vice President
 Global Market Strategist
 Hong Kong*

Dr. Jasslyn Yeo, CFA
*Vice President
 Global Market Strategist
 Singapore*

Chaoping Zhu, CFA
*Vice President
 Global Market Strategist
 Shanghai*

Hannah J. Anderson
*Associate
 Global Market Strategist
 Hong Kong*

Ian Hui
*Associate
 Global Market Strategist
 Hong Kong*

Shogo Maekawa
*Associate
 Global Market Strategist
 Tokyo*

The Market Insights programme provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the programme explores the implications of current economic data and changing market conditions.

This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be taken as advice or a recommendation for any specific investment product, strategy, plan feature or other purpose in any jurisdiction, nor is it a commitment from J.P. Morgan Asset Management or any of its subsidiaries to participate in any of the transactions mentioned herein. Any examples used are generic, hypothetical and for illustration purposes only. This material does not contain sufficient information to support an investment decision and it should not be relied upon by you in evaluating the merits of investing in any securities or products. In addition, users should make an independent assessment of the legal, regulatory, tax, credit and accounting implications and determine, together with their own professional advisers, if any investment mentioned herein is believed to be suitable to their personal goals. Investors should ensure that they obtain all available relevant information before making any investment. Any forecasts, figures, opinions or investment techniques and strategies set out are for information purposes only, based on certain assumptions and current market conditions and are subject to change without prior notice. All information presented herein is considered to be accurate at the time of production, but no warranty of accuracy is given and no liability in respect of any error or omission is accepted. It should be noted that investment involves risks, the value of investments and the income from them may fluctuate in accordance with market conditions and taxation agreements and investors may not get back the full amount invested. Both past performance and yields are not reliable indicators of current and future results.

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide. This communication is issued by the following entities: in the United Kingdom by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions by JPMorgan Asset Management (Europe) S.à r.l.; in Hong Kong by JF Asset Management Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited; in Singapore by JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), or JPMorgan Asset Management Real Assets (Singapore) Pte Ltd (Co. Reg. No. 201120355E); in Taiwan by JPMorgan Asset Management (Taiwan) Limited; in Japan by JPMorgan Asset Management (Japan) Limited which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number “Kanto Local Finance Bureau (Financial Instruments Firm) No. 330”); in Korea by JPMorgan Asset Management (Korea) Company Limited; in Australia to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Cth) by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919); in Brazil by Banco J.P. Morgan S.A.; in Canada for institutional clients' use only by JPMorgan Asset Management (Canada) Inc., and in the United States by JPMorgan Distribution Services Inc. and J.P. Morgan Institutional Investments, Inc., both members of FINRA/SIPC.; and J.P. Morgan Investment Management Inc.

In APAC, distribution is for Hong Kong, Taiwan, Japan and Singapore. For all other countries in APAC, to intended recipients only.

Copyright 2017 JPMorgan Chase & Co. All rights reserved.

0903c02a81ffe237

LV-JPM50727 | 12/17