Quarterly Economic Outlook
Q3 2017

John Greenwood
Chief Economist, Invesco

Overview

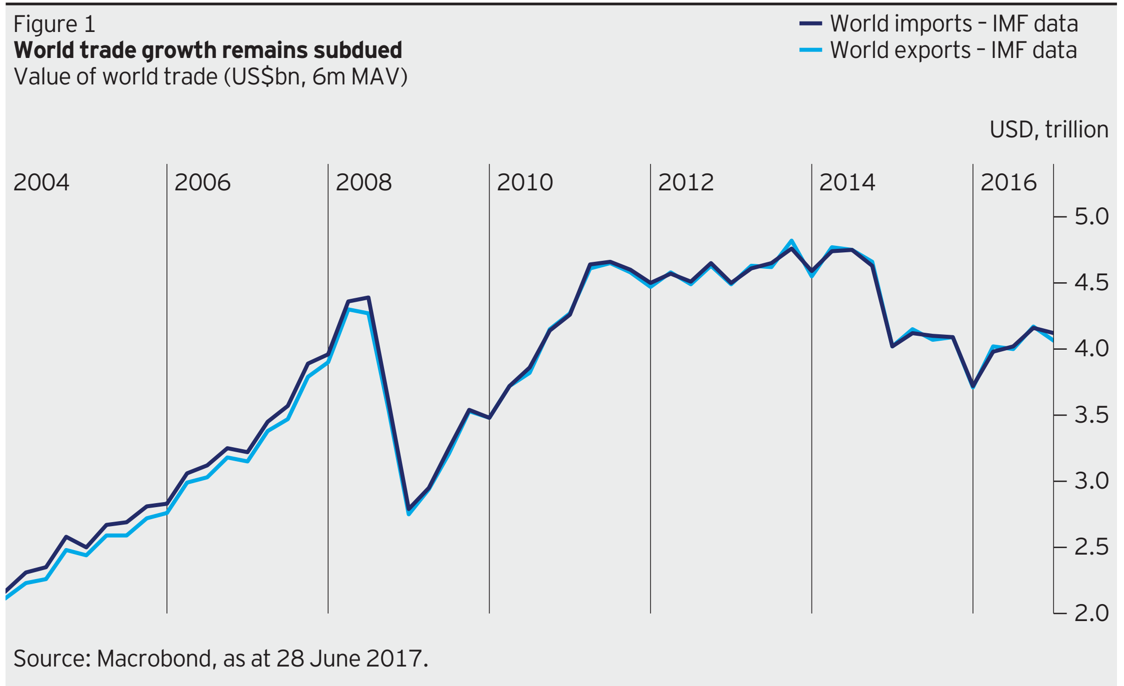
- The US business cycle expansion is still intact, owing much more to underlying fundamentals such as private sector deleveraging, the recovery of the banks, improved consumer finances, low inflation, and continuing low interest rates than any impact from the accession of Mr Trump to the Presidency.
- In my view the US expansion should be able to continue for several more years, creating the basis for further upswings in equities, real estate and other risk assets as the expanding GDP or total spending is reflected in higher corporate and household earnings.
- The main risk to this scenario is that the US Federal Reserve (Fed) tightens credit too sharply, not by raising interest rates but by curtailing credit growth in the private sector. This could happen as the Fed shrinks its balance sheet, even at very low interest rates.
- Following the 0.25% hike in the US federal funds rate in June, I expect the Fed will raise interest rates once more in 2017, by 0.25%. I also expect the Fed to start shrinking its balance sheet in October or November.
- US consumer price inflation will soften in the short term and rise only moderately in the medium term, and will not be much affected either by the tightening labour market or by any expansion of the federal deficit. The reason is that money and credit growth remain subdued, around 4-6%.
- In the Euro-area growth has improved and the hurdle of political elections has passed without threat to the Euro currency system. The German elections in September are the remaining uncertainty, but there is no serious populist threat to the established parties of centre right or centre left.
- The triggering of Article 50 on March 29 for Brexit will lead to protracted negotiations between Britain and the EU over the next two years. During that period I expect any progress or setbacks in the discussions to be directly reflected in sterling and gilt yields, which will inevitably be volatile.
- Imported inflation from the depreciation of sterling is reducing UK consumer spending in real terms, while the overall uncertainty about the exit process will undermine foreign direct investment (FDI) in the country.
- The general election called by Prime Minister Theresa May on 8 June produced a "hung parliament" with Conservatives having to ensure their survival by doing a deal with the Democratic Unionists of Northern Ireland. This outcome has greatly reduced the Prime Minister's freedom of action across a range of policy areas.
- Meantime, the Bank of England's (BoE) credit promotion policies implemented last August risk adding domestically generated inflation to imported inflation from weak sterling. In response the BoE tightened capital requirements on 27 June.
- The Japanese economy has seen slightly better growth, but inflation remains far below 2%. The combined policies of Prime Minister Abe and Governor Kuroda at the Bank of Japan (BoJ) are missing their targets.

- China has continued to alternate between squeezing and easing credit with the aim of keeping the economy on the rails ahead of the autumn National Congress. External trade figures have improved slightly, but this does not mark the start of a renewed export-led boom. Overcapacity in basic industries such as coal and steel, and rising non-performing loans in the banking system are constraining the growth of new investment.

- On the external side the Chinese authorities have been restricting capital outflows and attempting to encourage more inflows, enabling the currency to stabilise in recent months.

- In the commodity complex, oil prices remain under downward pressure thanks largely to the developments in US shale and the difficulty of maintaining the OPEC cartel under current conditions. The majority of base metal prices increased in anticipation of a strong Trump infrastructure programme, but the failure of those plans to materialise has meant that the rally has failed to gain ground. The upside for commodities in 2017 is limited in my view.

Figure 1
World trade growth remains subdued
Value of world trade (US$bn, 6m MAV)



Source: Macrobond, as at 28 June 2017.

Figure 2
Consensus Economics

(%)

	2016 Actual		2017 Consensus forecasts (Invesco forecast)			
Economies	**Real GDP**	**CPI inflation**	**Real GDP**		**CPI inflation**	
US	1.6	1.3	2.2	(2.1)	2.3	(2.1)
Eurozone	1.7	0.2	1.8	(1.7)	1.6	(1.2)
UK	1.8	0.7	1.6	(1.4)	2.7	(2.7)
Japan	1.0	-0.1	1.2	(1.1)	0.7	(0.5)
Australia	2.5	1.3	2.2	(2.4)	2.2	(2.2)
Canada	1.5	1.4	2.5	(2.7)	1.9	(1.7)
China	6.7	2.0	6.6	(6.5)	1.9	(2.1)
India	7.1	4.5	7.3	(6.9)	4.4	(4.7)

Source: Consensus Economics, Survey Date: 12 June 2017.

United States

After almost two quarters in office, President Donald Trump is falling far short of his intended progress, although he is nevertheless maintaining support among his core voter base. His executive orders on immigration have been countermanded by the courts while his reform of the Affordable Care Act (Obamacare) has been stopped and is being redrafted by the Senate and House. His plans for personal and corporate tax cuts, the introduction of a border adjustment tax and a profit repatriation scheme are being pushed into the future. His infrastructure spending plans (originally US$1 trillion over 10 years, to be financed one quarter by the federal government, three quarters by private participation) are still in gestation. President Trump's only significant achievements so far are his executive orders allowing the go-ahead for the Keystone and XL pipelines, the appointment of Judge Neil Gorsuch to the Supreme Court, and his withdrawal from the TPP and NAFTA trade agreements and from the Paris Climate Change Treaty while blocking the closure of a number of coal-fired power stations. The business of government is proving harder than running a group of unlisted, privately owned property companies.

Meantime, the 17% rally in the S&P 500 index from November to June, though helped by the Trump rally, has in my view mainly reflected the strengthening business cycle upswing. In the short term, the "hard" indicators such as profits and revenue growth, industrial production or real GDP growth have been distinctly lacklustre. While it is possible that these may strengthen in coming months, there would need to be an extraordinary shift in performance to start to achieve Mr Trump's target of "at least 3.5% and as high as 4%" real GDP growth. Among the measures that might be expected to assist in reaching that goal are the President's intention of rolling back the Dodd-Frank Act on banking regulation and the plan to invest in improving infrastructure. If, as a by-product of these changes, faster money and credit growth can be achieved then it is entirely possible that nominal indicators such as final sales, nominal GDP and corporate profits could start to improve, but there is little sign of that so far. The slump in oil prices in particular - if continued - is likely to result in weaker capital spending later this year.

Meantime the Fed has continued with its policy of gradually normalising - not tightening - interest rates, raising the fed funds target range to 1.0-1.25% on 14 June. It has recently also spelled out how it intends to shrink its balance sheet over the next few years. The plan is to avoid any outright sales of Treasury or Mortgage-Backed Securities (MBS) but to allow a gradually growing volume of Fed holdings to mature and not to reinvest the proceeds as it has been doing up until now. Initially the runoff will start at US$10 billion per month (possibly from September or October), but over the course of a year this will grow to US$50 billion per month. This means that the Treasury and the government agencies will need to increase the size of their auctions in order to replace the Fed as a holder of their debt with private sector investors. In her news conference on 14 June, Fed Chair Yellen optimistically stated that this can occur "in the background" as the Fed continues with its interest rate hikes. This may well be misguided. Selling US$50 billion of additional debt securities per month risks raising long term rates, tightening financial conditions and squeezing bank credit, and money growth. In my view the Fed will need to proceed with caution.

Already since September/October 2016, US bank lending growth has slowed from 8% p.a. to 4% p.a. in May, while M2 growth has slowed from 8% to 5.5%. Although bond issuance in the first quarter of 2017 was a vigorous US$480 billion following record issuance of US$1.54 trillion in 2016, the warning signs are flashing amber.

I forecast real GDP growth to improve slightly (compared to 2016) to 2.1% in 2017 and 2.4% in 2018. I expect consumer price (CPI) inflation to average 2.1% in 2017.

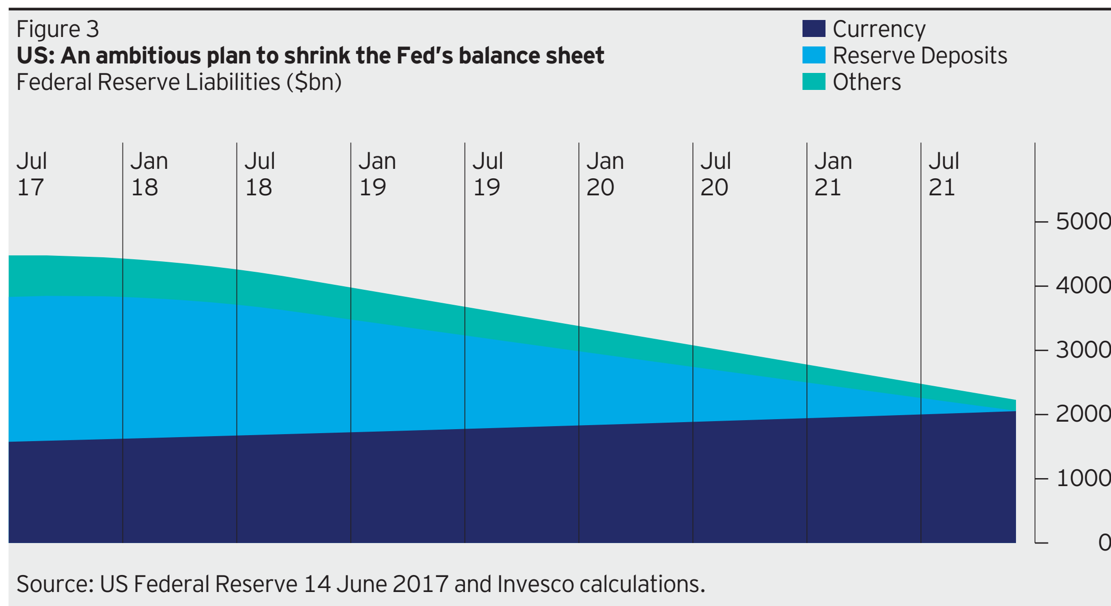


Figure 3
US: An ambitious plan to shrink the Fed's balance sheet
Federal Reserve Liabilities ($bn)

Source: US Federal Reserve 14 June 2017 and Invesco calculations.

The Eurozone

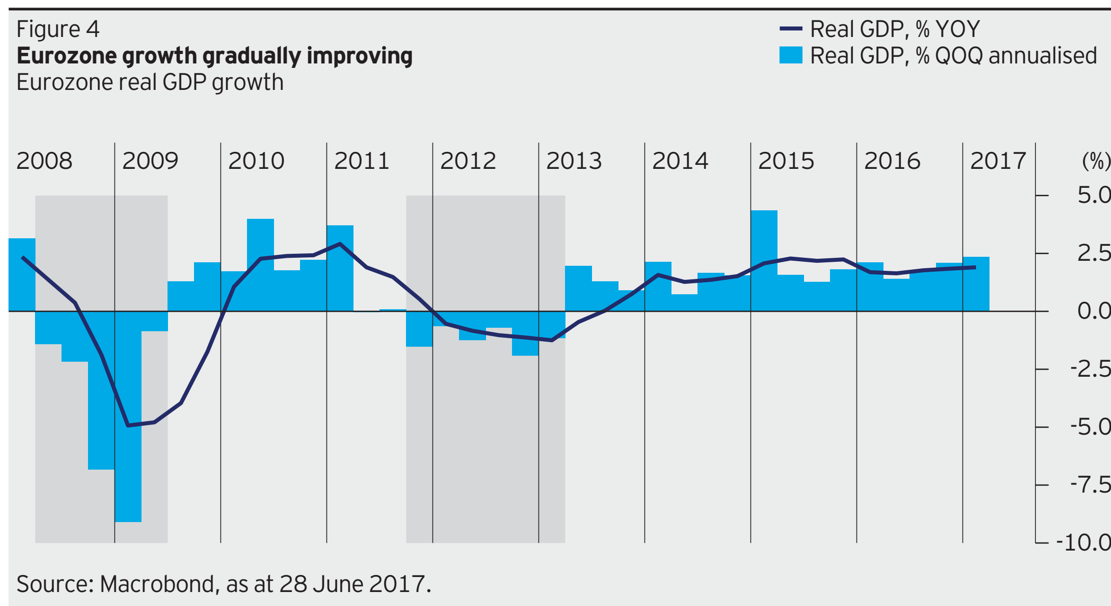
With the completion of the French Presidential and State Assembly elections in May and June the political calendar in Europe will take a pause until the German elections in the autumn. In France, President Macron's victories in the Presidential race and in the parliament should enable at least a start on much-needed labour market reforms although opposition from trades unions is expected to be fierce and possibly violent. Meantime the negotiations between the EU-27 and the UK over Brexit have begun and will no doubt proceed with varying degrees of heat and light through the next year and a half.

On the economic front the European economic situation has been gradually improving, although, as in the US, sentiment has been running ahead of reality. Real GDP growth in Q1 2017 increased to 1.9% year-on-year (from 1.7% in 2016), and 2.3% quarter-on-quarter annualised, its best showing since Q1 2015. The German IFO Business Climate Index for June increased to 115.1, the highest level since the initial rebound of activity in 2010 after the global financial crisis. Elsewhere, French real GDP growth improved to 0.5% quarter-on-quarter and 1.1% year-on-year while France's composite PMI for June reached the healthy level of 55.3. This indicates momentum is moving in the right direction but French unemployment is still woefully high at 9.6%. Perhaps the most encouraging feature of the Eurozone has been the apparent willingness to consider more budgetary integration at the European level following Macron's election as President and to consider his proposal to appoint an EU finance minister. In the periphery Ireland and Spain are recovering strongly, but Italy is still struggling with bank failures - a direct consequence of prolonged weak growth, although the 1.2% real GDP in the first quarter represented a modest improvement.

In the arena of monetary policy the European Central Bank (ECB) continues to purchase securities at a rate of €60 billion per month under its version of quantitative easing (QE) and the senior members of the Governing Council continue to emphasise the need to sustain the purchase programme until December 2017, or until the inflation rate picks up. For while real growth has improved, enabling the ECB to state that the downside risks have largely been eliminated and the risks going forward are balanced, at the same time the inflation rate has fallen back. In May the headline harmonised consumer price index slowed to 1.4% while the core measure (which excludes food and energy) slowed to 0.9%, both substantially undershooting the ECB's target of "close to but below 2%". One continuing problem, however, is the ECB's choice of QE strategy – buying securities from banks instead of non-banks, thus failing to boost the purchasing power of households and companies. As a result, M3 growth slowed in April to 4.9%, instead of growing at a more appropriate rate of 7-8% which would be feasible if all the ECB's asset purchases had been directed to non-banks.

The consensus forecast for Eurozone real GDP growth in 2017 has increased to 1.8%, slightly above my forecast of 1.7%. On the inflation front I expect inadequate M3 growth to continue, resulting in inflation at 1.2% for the year as a whole compared with a consensus figure of 1.6%.

Figure 4
Eurozone growth gradually improving
Eurozone real GDP growth



Source: Macrobond, as at 28 June 2017.

United Kingdom

The data for the first quarter of 2017 were the first that really started to reflect the adverse impact of the Brexit decision on the British economy. Real GDP increased at only 0.2% quarter-on-quarter but this was still 2.0% over the corresponding quarter of 2016 thanks to the strong performance in the three final quarters of 2016. Household spending in real terms slowed from 0.7% in Q4 2016 to 0.3% in Q1 2017 and, despite the weakness of sterling over the nine months since the referendum, imports increased while exports fell. This is typical of the "J-curve" pattern of adjustment of the external balance to exchange rate depreciations, initially worsening and only improving after an extended lag. In contrast, business investment defied the pessimists by increasing 0.6% compared with a decline of 0.9% in the preceding quarter.

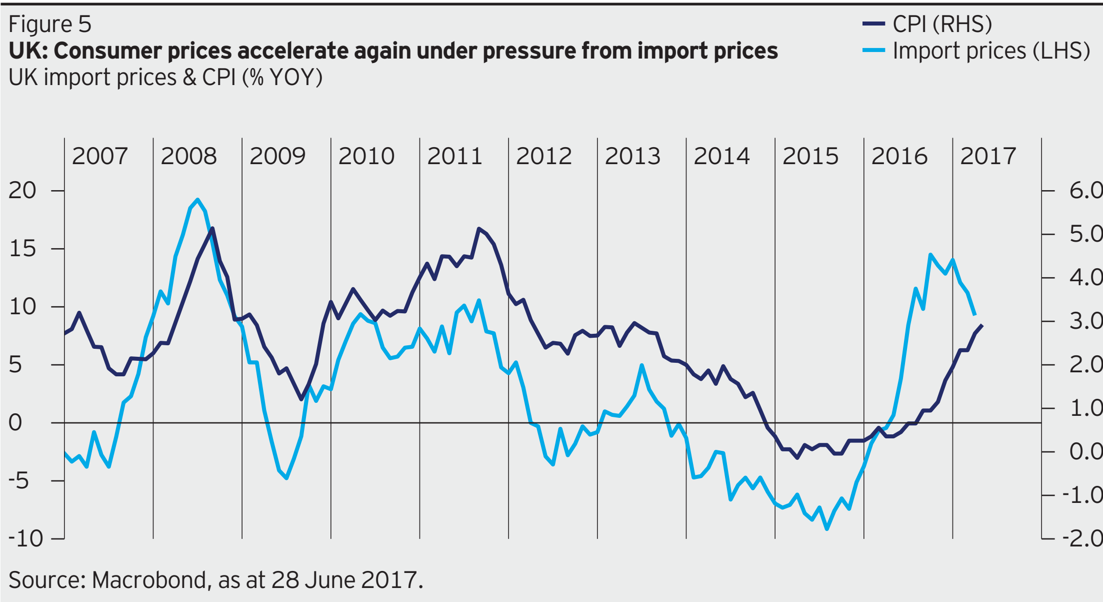
As in the US and the Euro-area, UK survey data have generally remained more buoyant. For example the end-May PMI for manufacturing was 56.7, and that for services was 53.8, giving a composite of 54.4. These figures represent declines from 2014-15, but imply a meaningful recovery in sentiment from the period immediately following the referendum.

On the political front the two main developments in recent months have been the submission by the UK government of an application under Article 50 of the Lisbon Treaty to leave the EU on 29 March and the calling of a general election by Prime Minister Theresa May on 8 June. The Article 50 letter means that there will now be two years of negotiations on the terms of Britain's exit conducted between the European Commission (representing the remaining EU-27) and the UK government. Looking forward it is likely that these negotiations will be complex and tense, having knock-on effects on the pound, the gilt markets and investment prospects in the UK. The atmosphere has been further complicated by the failure of Theresa May to secure an overall majority in the House of Commons, and therefore the need to enter a "confidence and supply" agreement with the Democratic Unionist Party of Northern Ireland in order to ensure a majority on key votes (i.e. the vote on the Queen's speech outlining the government's legislative agenda, votes of confidence and votes on financial matters such as the annual budget).

In policy terms the BoE had kept its settings unchanged since last August and then on 27 June it decided to raise the "countercyclical capital buffer," or capital requirements of banks, by 0.5% of risk-weighted assets (equivalent to £11.4 billion) and, at the same time, putting the banks on notice that it plans to raise the rate by a further 0.5% in November. The move comes against a backdrop that sees the BoE on the horns of a dilemma. On the one hand consumer credit has been growing too rapidly at 10.3% over the past year and deteriorating household finances could damage the creditworthiness of financial institutions, so it needs to tighten credit but on the other hand, the BoE would like to keep interest rates low to support investment spending and jobs during the Brexit negotiations. In my view, the BoE made a mistake in injecting new funds from last August when it decided to cut interest rates to 0.25% and start a new round of QE after money and credit growth had already accelerated from 4% in April 2016 to 8%. This is the main explanation for the strength of consumer spending since the referendum, which means that the latest adjustment of capital ratios will have little impact if money and credit continue to grow rapidly.

The acceleration in credit is also the main reason why the headline CPI inflation figure jumped to 2.9% in May - core CPI increased to 2.6% year-on-year - well ahead of the BoE's and financial markets' expectations. Essentially, domestic inflation is starting to be added to the imported inflation from the weaker pound. Already the consensus on the Monetary Policy Committee (MPC) is moving towards interest rate hikes, as was seen in the June meeting which voted 5-3 to maintain rates stable. Since then the BoE's chief economist has also said that he would soon be considering voting to raise interest rates. In sum, to curb inflation the MPC will sooner or later be compelled to raise rates.

For the year as a whole I forecast 1.4% real GDP growth and 2.7% consumer price inflation.



Japan

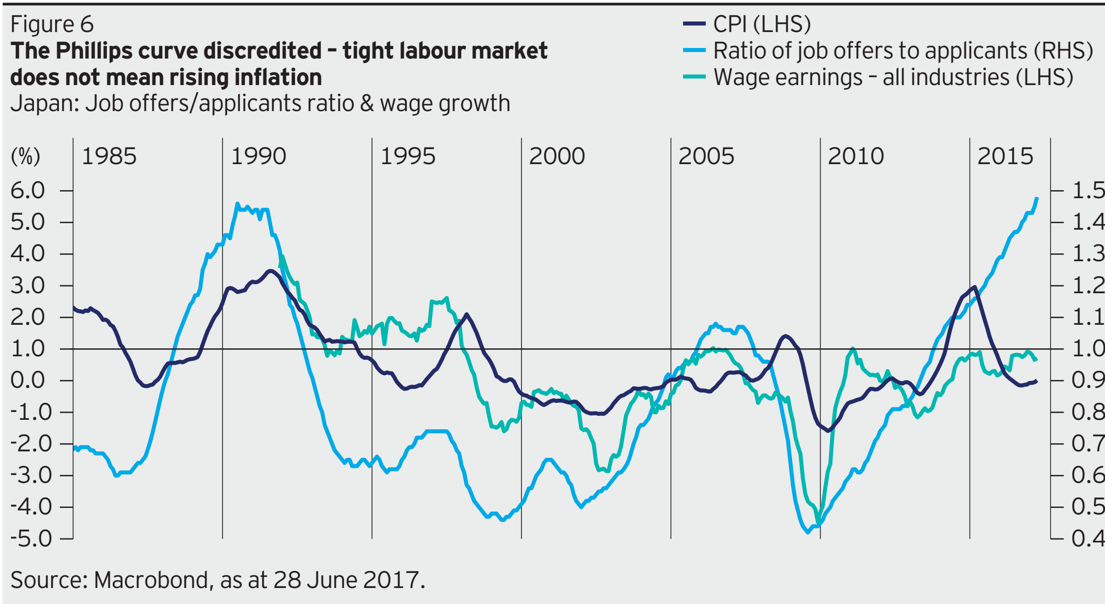
The Japanese economy delivered a real annualised GDP growth rate of 1.0% in Q1 2017, or 1.3% year-on-year. This growth rate was driven by a mild acceleration in consumption spending and continuing growth of exports. The depreciation of the yen during the last three months of 2016 has given a boost to exporters and corporate profits but it is doubtful whether the increased profits will be passed on to workers in the form of increased wages, even though the labour market is tight with unemployment at 2.9% and the job offers-to-applicants ratio at 1.48 in April, the highest level since the boom of the early 1970s. For perspective, since 2014 Japanese contracted or regular wages have grown at only 0.3% p.a. and total cash earnings have grown just 0.6% p.a.– both rates which look unlikely to change abruptly. Incidentally, the current experience in Japan of a tight labour market but low wage growth is strong evidence that the Phillips curve is not a good theory of inflation.

The "Abenomics" policy for reviving the economy via the "three arrows" of monetary expansion, fiscal stimulus and structural reform has been in operation for four and a half years but the economy has not responded as strongly as policy makers had hoped. Potential growth (a concept that includes the growth of the labour force and long-term productivity growth) is only at 0.7-0.8% p.a., largely because the labour force has been declining and productivity growth has slowed to below 1% since 2010. Meanwhile under the leadership of Governor Kuroda the BoJ's balance sheet has expanded by 200% since March 2013 when "Quantitative and Qualitative Easing" (QQE) was implemented. However, despite this massive expansion of the BoJ's assets, commercial banks' loans and deposits have only grown by 12% over the entire four years, or close to 3% p.a. The problem, aside from risk aversion by the banks, is that the BoJ's design of QQE is flawed since they purchase assets from banks rather than from the non-bank private sector, and they also still buy short-term paper. In effect the BoJ is relying on the banks to create loans (and hence deposits), instead of the BoJ circumventing the banks and creating new deposits directly by buying securities from non-banks.

The result is that Japanese broad money M2 has not grown anywhere near rapidly enough to produce meaningful inflation or growth. In fact it has averaged just 3.6% p.a. since April 2013. However, it needs to grow about 6% p.a. over a sustained period of time for the policy to be successful. Japan's headline inflation rate for consumer prices was 0.4% in April, while the so-called "core-core" CPI – excluding fresh food and energy – was exactly flat over the year at 0.0%.

I expect Japanese real GDP growth to average 1.1% in 2017, while some weakening of the yen (not domestic monetary growth) will raise headline inflation CPI to 0.5% in 2017.

Figure 6
The Phillips curve discredited – tight labour market does not mean rising inflation
Japan: Job offers/applicants ratio & wage growth



Source: Macrobond, as at 28 June 2017.

China and Emerging Asia

The Chinese economy has been experiencing divergent trends in policy over the past year and different sectors have responded with varying performance. On the one hand there were numerous stimulatory measures: government provided a fiscal boost by accelerating its spending from 8% to 18% between late 2015 and the end of 2016, and the central bank lowered banks' deposit and lending rates until November 2016. At the same time the authorities eased lending standards for mortgages and cut auto sales taxes from 10% to 5%. On the other hand domestic credit growth in China has slowed abruptly from 25% to 17% year-on-year over the past year, the auto tax was raised again to 7.5% and since November the People's Bank of China (PBC), China's central bank, has started raising interest rates, lifting the 3-month Shanghai interbank offered rate (Shibor) and 3-month repo rates by almost 200 basis points since the start of the year. In part the PBC has been closely following the Fed to prevent the Chinese currency depreciating; in part they have been keen to curtail a renewed surge of house prices. House prices in Tier 1 cities like Beijing, Shanghai and Guangzhou had increased by 28% year-on-year last September and had slowed to 13.5% by May 2017.

The main explanation for these seemingly contradictory policy moves is that the 19th National Congress of the Communist Party will be held in Beijing during the autumn - this is widely seen as a key opportunity for President Xi Jinping to consolidate his power, reshuffling the members of the State Council and nominating his loyalists to the top posts. Ahead of this Congress the political imperative is to keep everything stable, and above all to maintain the economic momentum of the economy. This has necessitated a series of moves – sometimes easing, sometimes tightening - to prevent short term problems from developing into full-blown crises.

Domestically the growth of real GDP was reported at 6.9% in the first quarter, marginally higher than the 6.7-6.8% growth reported during the four quarters of 2016. However, the Li Keqiang estimate of real GDP - named after China's premier and based on readily available data – has surged since late 2016, reflecting a temporary recovery of a number of basic industries such as steel, coal and electricity. On the external side, China's exports have also recovered from -7.4% year-on-year (on a three month moving average basis in US$ terms) in October 2016 to 11% in May. Imports have recovered even more sharply to a peak of 25% in March, and slowing to 15.6% in May. Given that the recent upswing in imports may be associated with base effects stemming from commodity price weakness in late 2015 and early 2016 and currency movements over the period, we should be cautious about drawing any strong conclusions but based on these data points it does seem that the prolonged slump in world trade may at last be easing.

Since China is by far the largest emerging market and the biggest buyer of commodities on world markets, the growth – or lack of growth - of China's imports matters immensely to a large number of commodity exporters, both developed and emerging. 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 sub-par recovery in the developed western economies, it may not be possible for China alone to act as a global locomotive for all commodity producing economies. For the year as a whole I expect 6.5% real GDP growth and 2.1% consumer price inflation.

Turning to the smaller, manufacturing economies of East Asia which are heavily involved in regional supply chains that include China, their outlook will depend far more for export improvements on the on-going business cycle upswings that are under way in the US and Europe than on a turnaround in the domestic Chinese economy. Korea, Taiwan and Hong Kong are only expected to grow at 2-3% this year, while the ASEAN economies are expected to grow at 4.8%. These real GDP growth rates are generally below past trends, reflecting the challenges faced by all export-oriented economies in a world of slow global trade growth.

Figure 7
Chinese credit growth slowing
China: Domestic credit & M2 (% YOY)

Source: Macrobond, as at 28 June 2017.

Commodities

My fundamentally bearish stance on the outlook for commodity prices remains intact although the recovery of oil and metal prices in 2016 began to suggest that the bear phase might be coming to an end. However, with Mr Trump's infrastructure plans mostly still on the drawing board and China curbing credit expansion, commodity prices have weakened. Here I focus on just two key areas; oil and metals.

The current downturn in oil prices has smashed OPEC's hopes of an oil price recovery resulting from their production cut agreement. Initially, following their agreement in November to cut output by 1.8 million barrels per day, the price of West Texas Intermediate (WTI) crude rose 35% between November 2016 and February 2017. However, since 23 February crude prices have fallen about 20% to around US$44 at the end of June.

I believe that OPEC's tactics are basically futile as the whole market structure has been disrupted by the emerging US shale oil industry becoming the marginal producer. US producers' response to OPEC's production cut was to ramp up production. Since the OPEC agreement on 30 November the US rig count is up 345, or 60%, US crude oil production is up 7.4% and the US is now pumping 9.33 million barrels per day. Thus despite the cartel agreeing to continue the cuts through March 2018, it is hard to see any sustained rally in the oil market. On the one hand not only are Nigeria and Libya increasing production (with OPEC's approval), but on the other hand the diplomatic rift between Qatar and its Arab neighbours has failed to impact the oil price as would have traditionally been the case. Given years of excessively high oil prices, global supplies have been growing in direct response. With those new supplies finally reaching the market, it would now take a massive geo-political crisis to shift the oil price to a rising trend.

Turning to metals, between November and March speculators and other market participants were confident Donald Trump would be able to implement his much-vaunted infrastructure investment plans. A pickup in demand for steel, copper and other base metal demand was therefore widely predicted. Accordingly, prices rose across metal markets ahead of the supposed infrastructure spending surge. However, it now seems far less likely that any significant increase in infrastructure will materialise. So far the prices of copper and steel have stabilised, rather than given up their gains. Aluminium and copper are both still up 9.4% and 12% respectively since the US presidential election on 8 November 2016. Zinc is also up 5.6% in the same period but has retreated somewhat, perhaps due to a decline in demand for galvanised steel in China, which is zinc's main use.

Chinese iron and steel prices are reacting to the Government's policies, notably efforts to control credit expansion in the economy, to moderate commodity speculation, and to close down inefficient production plants. Chinese iron ore prices have fallen 36% since March 2017 thanks to the authorities' efforts to control oversupply in the steel sector by mothballing and removing production capacity. The authorities have shuttered 50 million tonnes of official steel production capacity while in addition aiming to close down completely the illegal unofficial steel producers. They have so far reached 85% of their targeted reduction in official steel capacity. Prices of Chinese domestic rolled steel are up 16.6% in the same period and the supply of steel has fallen, suggesting that their efforts are working. This result is seemingly contrary to official data which shows a rise in output, but this is because the official data does not take into account the output of unofficial producers, which has virtually ceased.

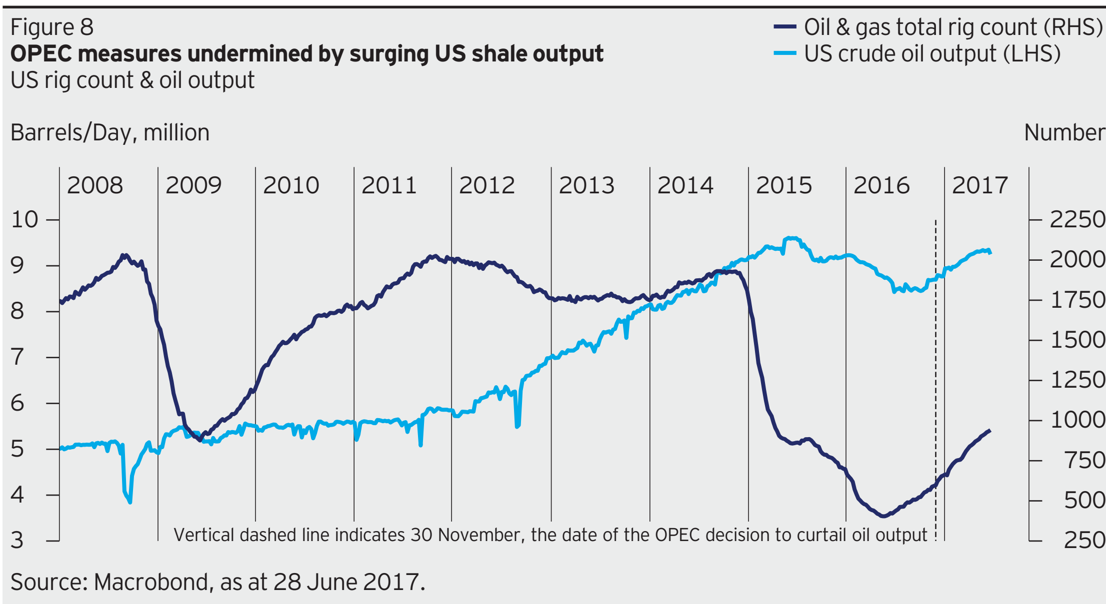


Figure 8
OPEC measures undermined by surging US shale output
US rig count & oil output

Source: Macrobond, as at 28 June 2017.

Conclusion

The Trump "reflation rally" that drove equity markets across the developed and emerging world in the four months after the US election has continued but it is more due to the underlying expansion of the US business cycle than to any Trump effect. This is clear from the fact that US bond yields have been falling, suggesting that economic activity and/or inflation are likely to weaken.

The recovery in the US is now percolating out to other areas. Improved performance in Europe, Japan and non-Japan Asia owe much to the spiller effects of the US upswing.

With the US Fed having moved to raise interest rates (NB to normalise but not tighten monetary policy) four times - most recently in June - the critical issue will be whether money and credit growth can be sustained at 6-8% p.a. as the Fed shrinks its balance sheet. If increased auctions of Treasury and Agency debt (as a result of the runoff of securities from the Fed's balance sheet) crowd out credit to the private sector or induce risk aversion on the part of the banks, then there is a real risk of a broader slowdown in 2018. That is not my base case, but investors need to be mindful of this possibility.

John Greenwood
Chief Economist, Invesco
28 June 2017

Important information

This marketing document is not subject to regulatory requirements that ensure impartiality of investment recommendations and investment strategy recommendations. Therefore, the prohibition of trading before the release of investment recommendations and investment strategy recommendations does not apply.

The value of investments and any income from them will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

While great care has been taken to ensure that the information contained herein is accurate, no responsibility can be accepted for any errors, mistakes omissions or for any action taken in reliance thereon.

Where John Greenwood has expressed opinions, they are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco professionals.

All data provided by Invesco, sourced from Macrobond, unless otherwise stated.

Data as at 28 June 2017, unless otherwise stated.

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

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

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

You should note that this information:

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

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

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