

Quarterly economic outlook for fourth quarter 2016



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Brexit

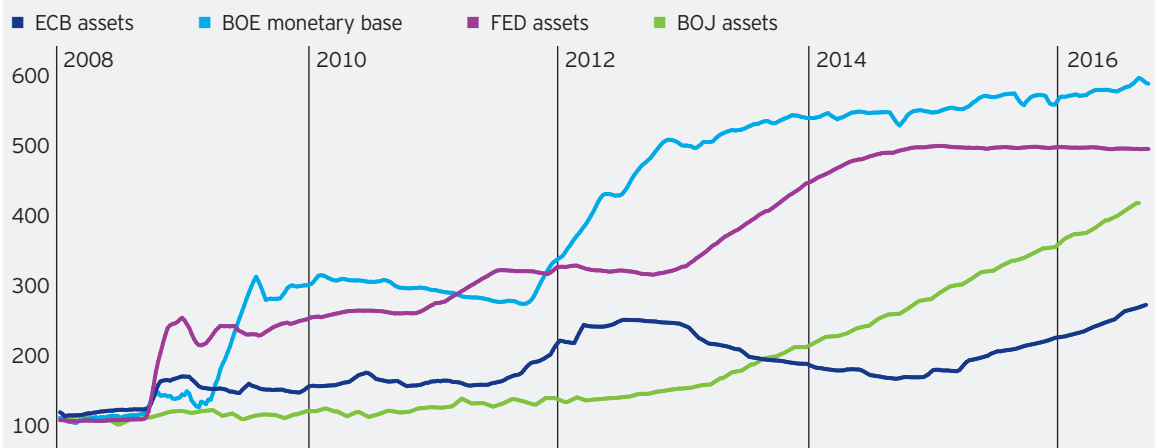
- After the sell-off in major asset markets and in sterling at the end of June, and the subsequent revival during the July-September period of almost all asset classes except the UK currency, the Brexit debate has moved into a “phony war” stage.
- All meaningful outcomes are in suspense until the British government declares its hand by triggering Article 50 of the Lisbon Treaty which initiates the procedure for a country to leave the European Union (EU). Recently, UK Prime Minister Theresa May has said that this would happen by the end of March 2017.
- Prime Minister May’s announcement comes despite arguments to the effect that it is futile to launch any negotiations until after France and Germany have new leadership in place after their respective presidential and federal elections in April/May and August/October 2017. The motive was to give businesses more clarity for their investment planning.
- My view is that, irrespective of the start date, the process is likely to be long and painful – somewhat like the Sino-British negotiations in 1981-1984 over the future of Hong Kong after 1997. In those negotiations, the diplomats met at roughly six-week intervals, negotiating on one or more topics. On each occasion when the results became known, financial markets moved abruptly up or down. Volatility in financial markets – at least for sterling assets – is therefore likely to be the hallmark of the next few years.
- Given that the UK has a Conservative administration in place, the ultimate form of agreement between the EU and the UK is likely to be nearer to a “hard Brexit” (i.e., the loss of market access in exchange for control of immigration) than to any maintenance of the status quo – in other words, closer to the World Trade Organization (WTO) or Canada model than to the Norway or Swiss models (both of which enable market access but insist on free movement of people and contributions toward the EU budget).
- Meanwhile, when the EU-27 (ex-UK) met at Bratislava in late September, there was little consensus on the direction of the EU after British withdrawal, and open disagreement on migration, fiscal austerity, etc.

Central banks

- Despite the summer holidays in the northern hemisphere, the third quarter marked another period of intense speculation about what central banks might or might not do on the policy front.
- First, on Aug. 4, the Bank of England (BOE) cut Bank Rate to a record low 0.25%, renewed quantitative easing (QE) with a further planned purchase of 70 billion pounds sterling, and added a new “Term Funding Scheme” to encourage banks to make more loans to businesses.
- Second, despite active speculation that the European Central Bank (ECB) would ultimately need to extend its QE purchase program, the Governing Council decided to take no actions on either July 21 or Sept. 8.
- Third, the US Federal Reserve’s Federal Open Market Committee (FOMC) decided at its July 26-27 and Sept. 20-21 meetings to take no action. Anxiety about relatively weak growth at home and subdued inflation, plus concern about weakness abroad, again induced postponements of any interest rate rise. The market now expects a 0.25% interest rate hike in December.
- In the US, and to a lesser degree other developed economies, the long bond market appears to be finally approaching a major turning point after some 35 years of consistently falling yields. If so, this could have a major impact on a whole range of asset classes.
- Finally, the Bank of Japan’s (BOJ) Policy Board, having witnessed a prolonged failure to achieve its 2% inflation target (“New Core” CPI inflation) and a failure of the economy to strengthen in any material way, decided to undertake a second “comprehensive assessment” of quantitative and qualitative easing (QQE) and monetary policy. (The previous one was in May 2015.) The results of the latest review were released on Sept. 21. In summary, the BOJ stuck with its existing methodology, relying on a larger monetary base and lower yields to boost the economy, not faster M2 growth.

Figure 1 – Central banks continue to maintain or expand their assets

Central bank assets/liabilities (Jan 2008=100) in local currencies



Source: Macrobond, data as of Oct. 3, 2016.

- The overall picture for developed economies is therefore one in which both growth and inflation will remain subdued. While central banks maintain or expand their assets, other financial institutions, firms and households outside the central banks continue to experience low money and credit growth.
- In the emerging economies, the slowdown in China, together with ongoing recessions in Brazil and Russia, are impacting commodity markets. Despite the recent modest upturns in oil, iron ore and coking coal prices, numerous basic industries have massive excess capacity that will likely weigh on commodity prices. Meantime, global trade volumes will remain distinctly weak, undermining the performance of many export-led emerging economies.
- Beyond that, emerging market (EM) commodity producers are likely to continue to suffer further commodity price weakness and currency depreciation, while EM manufacturers should start to benefit from the steady recovery in the US.

Figure 2 – Consensus and Invesco forecasts

Consensus Economics	2015 actual		2016 consensus forecast (Invesco forecast)	
	Real GDP (%)	CPI inflation (%)	Real GDP (%)	CPI inflation (%)
US	2.6	0.1	1.5 (1.5)	1.2 (1.1)
Eurozone	1.9	0.0	1.5 (1.6)	0.2 (0.2)
UK	2.2	0.0	1.7 (1.7)	0.7 (0.7)
Japan	0.6	0.8	0.6 (0.8)	-0.2 (-0.1)
Australia	2.4	1.5	2.9 (2.7)	1.3 (1.3)
Canada	1.1	1.1	1.2 (1.0)	1.6 (1.1)
China	6.9	1.4	6.6 (6.6)	2.0 (1.6)
India	7.4	4.9	7.6 (7.5)	5.2 (5.1)

Source: Consensus Economics, survey date: Sept. 12, 2016.

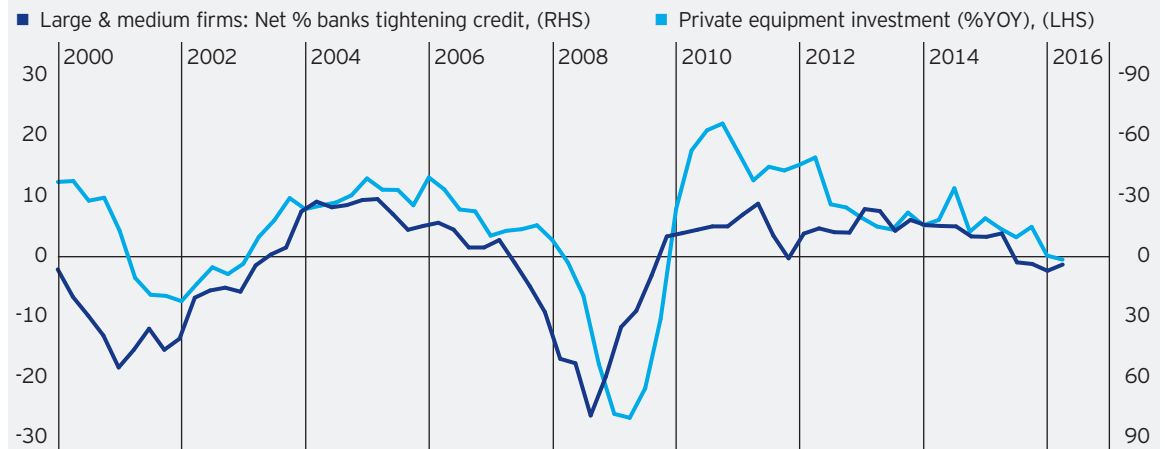
United States

After a revised estimate of 0.8% annualized in the first quarter of 2016, US real gross domestic product (GDP) improved in the second quarter only slightly to 1.1%. However, on Sept. 30, the Atlanta Fed's "Nowcast" estimate of real GDP for the third quarter was 2.4% – a substantial improvement in growth compared with the first two quarters. Although still too early to be reliable, this estimate is more consistent with recent nonfarm payroll data, which recorded firm increases averaging 232,000 per month in the June-August period. Although personal consumption spending has also been reasonably buoyant, there are areas of the economy, such as corporate capital equipment spending, that are still running at well below past norms, implying that the overall outlook for the economy remains subdued.

The US consumer has higher savings, less debt, and stronger real take-home pay than in several years. This has been the basis for the US economy continuing to make steady progress while other economies have faltered. It also underlies the 4.4% growth in real consumer spending in the GDP figures for the second quarter. Hourly wage growth remained firm in August at 3.3%, down slightly from 3.6% in June, according to the Atlanta Fed's median wage growth tracker. Reflecting these tailwinds, real consumer spending was up 2.7% over the year to the end of the second quarter, but there may be some slowing in the months ahead due to headwinds such as tighter consumer lending standards, weaker corporate profits, slowing employment growth and rising health care costs. Softer retail sales in August – down 0.3% over the month in nominal terms, led by declines in building materials (-1.4%) and motor vehicle sales (-0.9%) respectively – may be a harbinger of slower growth.

However, the main area of concern in the US economy continues to be the health of the corporate sector. Following the steep cutbacks in capital spending by the energy sector in 2015, there has been little recovery in this sector, while the combination of a strong dollar and weak world trade have eroded the growth of overall corporate revenue, which has slowed to 2.1% year-on-year in the second quarter of 2016. Although interest rates and energy prices remain low, slowing profits, political uncertainties ahead of the election, and weakening growth abroad have lowered business confidence. One striking consequence has been the persistent weakness of capital spending by businesses, as reflected in the September edition of the Duke Survey of CFOs. Although capital expenditure grew faster than real GDP in the early years of the recovery, it may now have peaked. The tightening of bank lending standards for commercial and industrial (C&I) loans in recent quarters is another reason why capital spending has slowed.

Figure 3 – US business investment slows with tightening loan standards
US real business investment & C&I loan officer survey



Source: Macrobond, data as of Oct. 3, 2016.

Taking into account the weakness of GDP in the first two quarters, for the year as a whole I forecast US real GDP growth to be 1.5%, down from my previous estimate of 1.8%.

On the inflation front the headline CPI increased by 1.1% in August compared with the year before, while the core CPI, which excludes volatile food and energy items and gives a better sense of the trend, increased by 2.3%. Similarly, the headline personal consumption expenditure (PCE) deflator for July was 0.8% while the core PCE index (which omits food and energy) came in at 1.6% – still below the Fed’s 2% inflation target. However, modest money and credit growth over the past two to three years mean it is unlikely that inflation can increase significantly. For 2016 as a whole I forecast a 1.1% increase in headline CPI inflation, rising to 1.4% in 2017.

Against this backdrop of uncertainty about the strength of the recovery combined with generally subdued inflation and recurrent episodes of instability abroad (most recently Brexit), the FOMC again postponed hiking interest rates in September. It now looks highly likely that the Fed will raise rates by a further 0.25% in December, after the US presidential election.

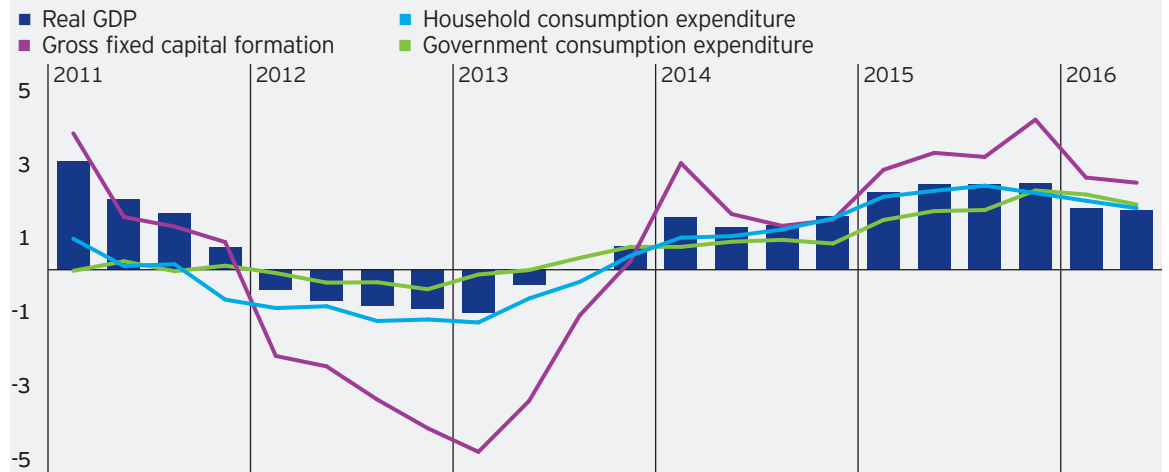
The eurozone

In the 18 months since the ECB started its QE purchases of government bonds in March 2015, the economies of the eurozone had gradually started to see some signs of improvement. But in the second quarter of 2016, GDP slowed to 0.3% from the first quarter’s level of 0.5%. This translated into a growth of 1.6% year-on-year in the second quarter, slightly down on the 1.7% seen in the previous quarter. The slowdown occurred despite fiscal spending restraints becoming less of a drag on overall GDP. However, with the ECB expanding its asset purchases in June to include corporate bonds and looking likely to extend its sovereign bond purchase program beyond next March, the eurozone should continue to grow at 1.5% to 2.0% annually.

As shown in Figure 4, the slowdown in growth has come from modest decreases in each of the main GDP components -- personal consumption, gross fixed investment, and government expenditure. Given the backdrop of substantially lower energy prices and continuing positive net export growth, the slowdown in GDP growth was a little disappointing.

Figure 4 – Eurozone real GDP growth slowed in the first half of 2016

Eurozone GDP growth & components %YOY



Source: Macrobond, data as of Oct. 3, 2016.

Prolonged low rates of money and credit growth together with the strengthening of the euro in 2014 and 2015 have meant that inflation in the euro-area continues to undershoot official targets. In September, the headline CPI increased just 0.4% year-on-year, while the core CPI (excluding food and energy) increased 0.8% year-on-year, well below the ECB's target of "below but close to 2%." To try to overcome this long-running problem, the ECB's Governing Council decided in March to expand its QE asset purchases from 60 billion euros per month to 80 billion euros per month, starting in April 2016 to run until March 2017 "or beyond, if necessary and in any case until the Governing Council sees a sustained adjustment in the path of inflation." It also expanded the range of its purchased assets to include 5 billion to 10 billion euros per month of corporate bonds and to launch four targeted longer-term refinancing operations (TLTRO II), with both the latter programs starting in June.

The ECB's QE program remains less stimulating to markets and the broader euro-area economy than it should be due to basic design flaws. It is no coincidence that the two main areas that are experiencing negative interest rates, sub-par growth and near-deflation - Japan and the eurozone (plus spill-over effects in the three euro-linked economies of Sweden, Denmark and Switzerland) - are also the economies where the major central banks have implemented flawed versions of QE.

The fundamental problem is that, like the BOJ, the ECB's approach to QE has been to expand the monetary base (i.e., bank reserves at the central bank plus cash currency), in the hope that this will somehow translate into faster overall spending growth in the economy as a whole. But while there is a reasonably reliable relation between broad money **growth** (i.e., M2 or M3) and nominal GDP, there is no reliable relation between the monetary base and nominal GDP. During periods of economic stability or normality, broad money and the monetary base generally grow in line together, but this is driven by the growth of broad money, with the monetary base reflecting the public's demand for cash currency. At times like the present, when banks are reluctant to lend and firms and households reluctant to borrow, broad money growth (which mostly derives from banks creating more loans) remains inadequate to generate nominal GDP growth that will enable the 2% inflation target to be hit.

Given these problems in the implementation of QE, and the need for further bank balance sheet repair across the region - as highlighted by the recent problems of Deutsche Bank - euro-area growth will continue to be modest rather than strong. In addition, while the long-term consequences of the Brexit decision should favor the rest of the EU at the expense of the UK (particularly in the financial sector and foreign direct investment), in the short term the shocks to eurozone activity that will flow from weaker sterling and some slowdown in the UK will adversely affect the other EU economies. For 2016 as a whole, I therefore expect real GDP growth of 1.6% and CPI inflation of 0.2% for the eurozone.

United Kingdom

Before the Brexit decision, the UK economy grew modestly at 0.4% quarter-on-quarter in the first quarter of 2016, and a revised 0.7% in the second quarter leading up to the referendum. These figures translate into 1.9% and 2.1% year-on-year growth. Since the referendum, there have been numerous surveys suggesting that consumer spending has remained buoyant, while business investment has slowed. Consumers are temporarily benefiting from improved wages and higher employment, and have not yet been affected by the decline in sterling, but it is widely expected that the price increases from the weaker currency will start to undermine real take-home pay over the winter months.

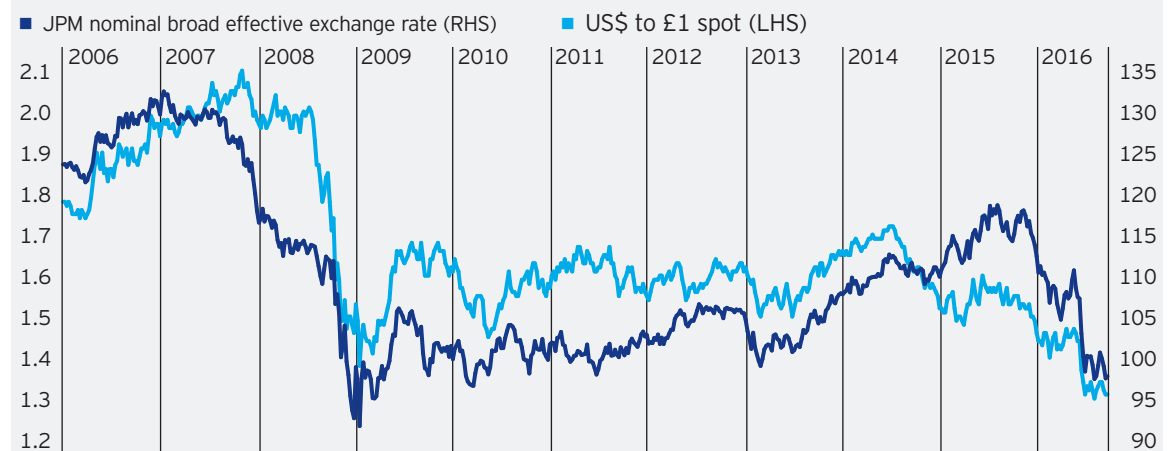
Similarly in the business arena, there have been offsetting forces at work. On the one hand, the cheaper pound has given a temporary competitive boost to exporters. But on the other hand, numerous projects involving foreign direct investment have been put on hold.

Although the UK remains the largest destination for foreign direct investment (FDI) in Europe, there have been numerous warnings from Japanese and other foreign investors that they would need to reconsider their capital investments in the UK if the country was to leave the single market.

In anticipation of this kind of uncertainty about FDI flows and unavoidable financial market volatility, the BOE cut interest rates by 25 basis points to 0.25% on Aug. 4, introduced a new Term Funding Scheme designed to boost the pass-through of lower interest rates into commercial bank lending, and the purchase of 60 billion pounds sterling of government bonds and 10 billion pounds sterling of corporate bonds. While the rate reduction is probably mostly symbolic – if lenders and borrowers have been reluctant at 0.5%, they will not suddenly change their attitudes at 0.25% - the additions to QE represent a substantial boost to money and credit growth. Coming on top of figures which were already starting to show the revival of bank lending and faster M4x growth, it may be that these measures will need to be wound back at some stage. Consequently, I expect inflation to pick up moderately as a result of Brexit, rising from 0.3% year-on-year to 0.7% for this year as a whole.

Figure 5 – Main impact of Brexit has been on sterling so far

UK £ to US\$ and trade-weighted index



Source: Macrobond, data as of Oct. 3, 2016.

On the fiscal policy side, the Chancellor of the Exchequer has made it clear that the financial projections made at the time of the March Budget can no longer be expected to hold. Revenues are certain to fall below target, while the government may need to undertake further expenditure to support economic activity in particular sectors. Either way, the previous target of achieving a budget surplus by 2020 will now be set aside as the economy adjusts to the post-Brexit environment, but investors should not expect too much of a boost from the easier fiscal stance. Unless additional fiscal spending is accompanied by faster money and credit growth, it seldom boosts overall spending growth.

With all these changes flowing from the Brexit decision, I now expect the economy to grow at 1.7% for the year as a whole (compared with my previous forecast of 2.2%), and about 1% in 2017. Since the bulk of this slowdown will come in 2017, there is some possibility of a technical recession (i.e., two successive quarters of decline in real GDP). However, with consumer spending buoyant and with fiscal easing in prospect, the risk of recession should not be overstated.

Japan

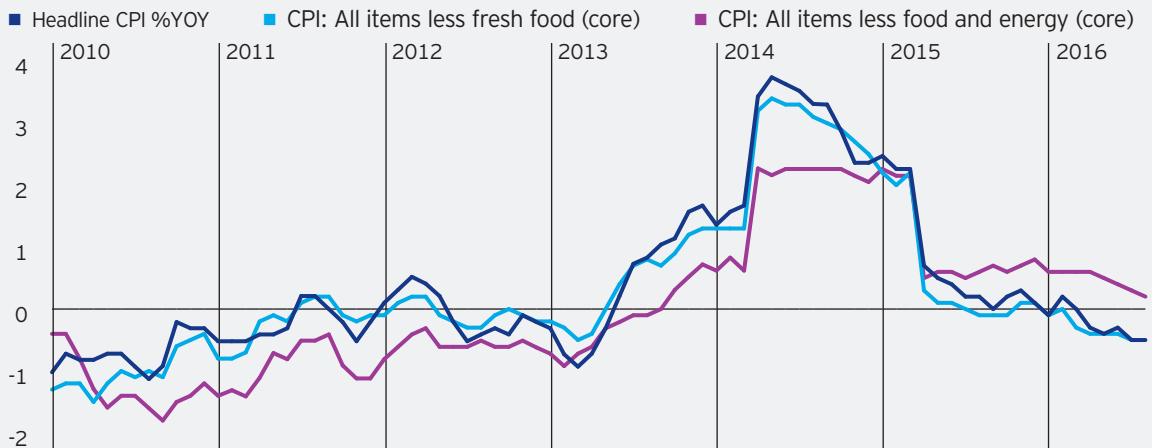
Revised GDP data now show that Japan's real GDP increased by 2.1% (at an annualized rate) in the first quarter of 2016, slowing to 0.7% annualized in the second quarter. The erratic pattern of Japan's GDP estimates is reflected in the fact that these figures translated into year-on-year growth rates of 0.2% and 0.8% only. Partly for this reason, the BOJ has devised its own private estimates of GDP based on tax returns, whereas the official figures are largely based on survey data. The Japanese tax data are only available after a year or so, whereas the official data must rely on more current information. BOJ estimates for 2014 suggest 2.4% real GDP growth -- a significantly higher rate of growth than the official figure of -0.9%. The economy unquestionably suffered from the increase in the consumption tax in April 2014, but it would be surprising if the economy really expanded as strongly as the BOJ figures suggest. The Cabinet Office is therefore currently considering how to reconcile the discrepancy between these two sets of figures.

The continuing sense of underlying economic weakness and the persistent failure to achieve the BOJ's inflation target of 2% were the main reasons why the central bank undertook a major assessment of its QQE policy. After the release of this second assessment on Sept. 21 (following a previous report in May 2015) the BOJ announced a revision of its modus operandi for QQE, shifting to "QQE with yield curve control" and vowing to exceed the so-far elusive 2% inflation target. In the future, it would seek to cap the yield on the 10-year Japanese government bond (JGB) at 0%, preventing it from rising any higher. However, the BOJ also maintained the current volume of JGB purchases at 80 trillion yen per month, so market participants are left with a somewhat unsatisfactory mixture of a price (or yield) target together with a quantitative target. However, as all students of economics are taught, no authority or private entity can control both the price and the quantity in a market. It therefore remains to be seen precisely how the BOJ will balance these two objectives.

One clear outcome of the BOJ's assessment is that the basic approach involving purchases of securities from Japan's commercial banks will remain unchanged. This means, in effect, that the BOJ will continue to boost the monetary base, or its own balance sheet, but it will not be explicitly targeting a faster growth of broad money or M2. If the BOJ were to concentrate on buying long-term securities only from nonbanks instead of from banks, the results would have been very different, directly creating new deposits and hence M2 in the hands of the non-bank public. M2 growth rates of 5% to 6% or more in turn would have triggered the portfolio rebalancing plus increased investment and consumption spending effects that were achieved by the US and the UK QE programs. Instead, Japan's M2 continues to grow at just 3.3% in August, about half the optimal rate of M2 growth, basically because loan growth – the matching item on the other side of banks' balance sheets – is growing very slowly. In August loan growth was 2.8%.

Figure 6 – Strong yen and weak M2 create renewed episode of deflation

Japan: CPI inflation, headline, core and new core



Source: Macrobond, data as of Oct. 3, 2016.

Against this weak growth background, inflation has again returned to negative territory. In August, the headline and core national CPI rates recorded -0.5% and -0.4% year-on-year, respectively. The headline figure has now been in negative territory on a year-on-year basis for five months (see Figure 6), while the CPI ex food prices has been falling for eight successive months. The so-called new core CPI (or CPI ex food and energy) has avoided outright deflation, but the direction is clearly downward. Three factors have affected the CPI data in the past two years: an upward spike from the consumption tax in April 2014, downward effects from the roughly 20% strengthening of the yen since mid-2015, and lower oil prices. These shocks show how difficult it is to manage Japan's CPI inflation on any short-term basis, but the BOJ Governor Haruhiko Kuroda appears determined to maintain his targets, even if that means regularly changing the tactics of implementation.

Together these challenging circumstances mean that I forecast Japan's real GDP to grow just 0.8% in 2016, and the country to record another year of deflation with a CPI change of -0.1% year-on-year for the year as a whole.

China and non-Japan Asia

Real GDP in China again grew at 6.7% in the April-June quarter compared with the same period a year ago, exactly the same as in the January-March quarter. The growth slowdown is in line with expectations and China's own growth targets set out in Premier Li Keqiang's 2016 Government Work Report. Given the need to adjust to overinvestment in basic industries such as steel and coal in recent years and the slump in global prices for the output of the state-owned enterprises in the heavy industry sectors, the government has set the GDP growth target for 2016 at a lower range of 6.5% to 7%.

The gradual slowdown in the economy has been reflected in the continued softness of the official manufacturing Purchasing Managers' Index (PMI) which was 50.4 in September, unchanged from August, and the unofficial Caixin PMI – a survey that focuses on medium- and smaller-sized companies – which was 50.1 in September. Both these measures indicate very meager growth rates for sectors that were previously powering China's rapid growth rates. However, the service sector is showing stronger growth with the Caixin PMI for services at 52.1 in August. Although the upswing in services is encouraging, signaling some rebalancing of the economy, the delay in official policies to reform the state-owned enterprises (SOEs) – such as the 2013 decision to rely more on market forces – means that the bulk of bank credit is still being allocated to the inefficient and less profitable SOEs.

Other strategies to offset the domestic slowdown include the OBOR (One Belt, One Road) plan to develop economies along the historic "Silk Road" as well as more southern maritime trade routes, and the launch of the new Asian Infrastructure Investment Bank. Under the OBOR plan, China plans to expand the market for Chinese exports, secure raw materials, provide outlets for domestic excess capacity and to promote further internationalization of the renminbi.

Given the need to deleverage the economy after seven years of very rapid credit growth, and given the slow growth of China's more developed trading partners, it seems inconceivable that there could be any significant upturn in the growth rate anytime soon. For 2016, I expect real GDP growth to slow to 6.6%, and inflation to remain broadly unchanged at 1.6%.

Figure 7 – Asia: India's real GDP growth now exceeding China's growth
China and India: Real GDP (%YOY)



Source: Macrobond, data as of Oct. 3, 2016.

While China continues to slow, India's economy has been gradually improving its performance. As Figure 7 shows, following the introduction of revised real GDP data, Indian growth now regularly surpasses that of China. Even so, China's economy is in many ways much more open than India's, having a much larger trade sector. Thus, while China exported over US\$2.2 trillion worth of goods in 2015, India exported only US\$355 billion. The differences on the import sides are similar, implying China will continue to have a far bigger regional (and global) impact than India.

The slowdown in China and in world trade has hit the smaller East Asian economies especially hard. Asian emerging markets are heavily reliant on exports. Therefore, declines in exports are having a sustained effect on East Asian economies' reported GDP figures, many of which have slowed to low-single-digit growth rates. In addition to seeing declines in their exports, these economies have also experienced a depreciation of their currencies against the US dollar, coinciding with the fall in exports that began in early 2015 and has persisted since. This has affected almost all the smaller East Asian economies.

Until global demand strengthens – especially in the euro-area and Japan – and China succeeds in stabilizing its growth rate, it seems likely that the smaller East Asian economies will not regain their past vigor. They may benefit marginally from cheaper commodity prices, but those price declines are hurting some of their key export markets such as Brazil and Indonesia. Finally, even the export of semi-manufactured items and components to China has declined, as more of the Asian supply chain relocates to China itself.

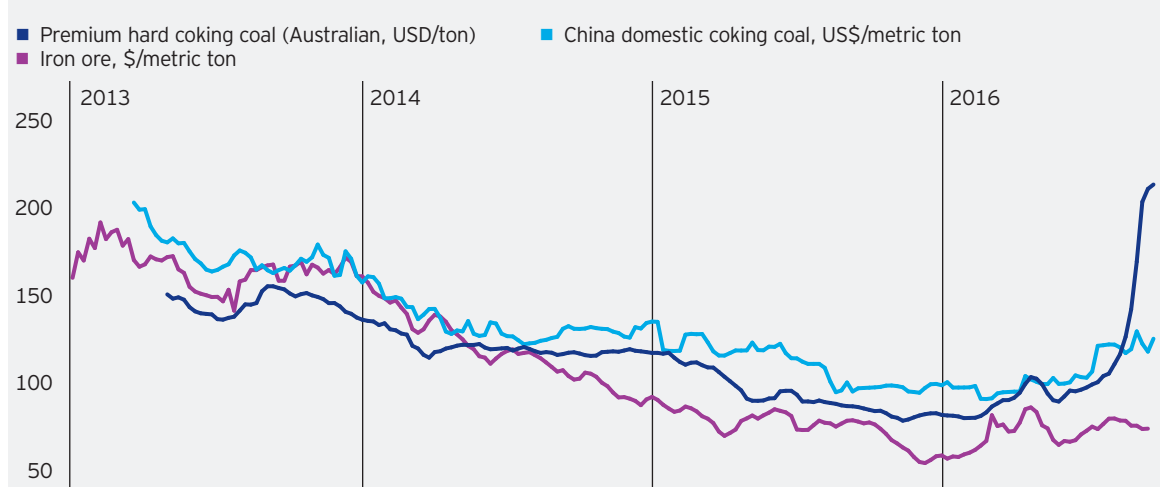
Commodities

During the past several years, commodity prices have consistently collapsed during the final calendar quarter. This year, that trend looks likely to be broken. At the end of September, the S&P GSCI spot index was up over 23% since the start of the year, although it is still 53% below its average over the last five years. Three factors explain this outcome: stronger growth in Asia outside of China, some reduction in supply, and the fading of the effects of the strong US dollar. Together these have led to commodity price indices rising from their nadir in January 2016, but a positive outlook for commodities is by no means guaranteed.

One factor generating some optimism in the commodity space, especially with the explosive growth of so-called paper commodities such as ETFs, is that most commodities are in "contango" (i.e., futures prices are above spot prices). This in turn has meant that commodity investors have been able to obtain positive roll yields once more, which is attractive in the current "search for yield" climate. Partly as a result, a consensus view has developed that the price collapse in the commodity markets since 2014 has at last bottomed out.

Unquestionably, the major driver of commodity markets in the last decade was the rapid growth of China, which is also the dominant end-user for a whole range of commodities. Therefore, the sustained slowdown in the Chinese economy, the emergence of massive excess capacity in key industrial sectors in China, as well as structural changes in the energy sector brought about by new supplies from unconventional sources such as shale, solar and wind, have inevitably led to substantial falls in commodity prices. Moreover, due to the long lead time of capital-intensive investment projects in the commodity sector, there are still plenty of new supply projects still coming on stream that were planned when commodity prices were much higher, further depressing prices. Offsetting that to some degree has been a collapse of new investment in industrial commodity projects that will lead to supply constraints in the future.

Figure 8 – Commodities: Chinese government measures responsible for spike in coking coal



Source: Macrobond, data as of Oct. 3, 2016.

Two commodities that are important bellwethers of Chinese industrial growth are coking coal and iron ore – key inputs for the manufacture of steel. Both have seen elevated levels of price volatility. Chinese domestic coking coal prices are up 28.2% in 2016. The international price of premium hard coking coal price is up 111% to over US\$200 per ton since June, making it the best-performing commodity this year (see Figure 8). The cause of the price rise has been production curbs in China, where the government is restricting the number of working days at domestic coal mines to 276 a year, down from 330. This policy is mainly aimed at improving the profitability of its bloated and heavily indebted coal industry so it can repay loans to domestic banks. However, these high prices are likely to trigger a supply response, particularly from producers in North America. Many US mines were mothballed in 2015 while others were placed under Chapter 11 bankruptcy protection. The re-opening of such facilities in turn should lead to lower prices next year as the increased supply comes to market.

Iron ore prices also have seen volatility this year. In March 2016, prices rose sharply, with many analysts believing at the time that it was due to pre-emptive production increases ahead of the city of Tangshan imposing a production ban during a forthcoming flower show. In retrospect, much of the price gain seems to have been the result of speculative trading on expectations of Chinese government stimulus. However, as the fundamentals in the Chinese iron ore market are not supportive of price rises, port inventories are high and supply is abundant. Unsurprisingly, since the beginning of August the iron ore price has weakened again.

Given that the fundamentals for most industrial commodities have not improved, the recovery in commodity prices during the first half of 2016 seems destined to prove a false dawn for commodity prices. From a broader economic standpoint, low prices are a requirement to cut supply and reduce excess capacity across a range of commodities, and this adjustment is likely to take several years. Equally, in the absence of significant CPI inflation globally, both lower prices and reduced capacity will be required to raise commodity prices in the medium to long term.

Conclusion

With the exception of sterling, global financial markets have recovered from the initial shock of the UK's Brexit decision. After some months of more sober reflection, investors appear to have concluded that the main impact will be on the UK itself, with comparatively minor spill-over effects for Europe and elsewhere. Europe has been largely preoccupied with the continuing problems of its banking system, most recently in Italy and Germany, a consequence of two factors: the failure to recapitalize banks on a systemic, across-the-board basis (as was done in the US) in the early stages of the global financial crisis and the failure to re-liquefy the economy by means of a well-designed QE program or other measures. The result has been a prolonged, sub-par recovery.

The US has continued to grow at a moderate rate, and whatever the outcome of the presidential election, it seems likely that this trajectory will enable the Fed to raise interest rates in December, and then again once or twice in 2017. In other words, the business cycle will continue to expand, irrespective of the political cycle.

In Japan, the economy continues to struggle to generate positive growth or inflation. As in Europe, there has been inadequate focus on balance sheet repair and the re-liquefaction of the economy by means of QE or banking sector expansion.

Finally, some of the large EM economies such as China and Brazil are now in urgent need of an extended period of deleveraging, which seems almost certain to undermine their growth rates going forward, thus keeping commodity prices subdued. In the wake of China's debt explosion, the only large EM economy that is capable of growing vigorously is India, but the government appears hesitant to implement the radical reforms necessary to expand its foreign trade sector. Meantime, the smaller East Asian economies will remain highly dependent on a continuing recovery in the US for any incremental growth in the year ahead.

For the world as a whole 2017 will be another year of only moderate growth, with inflation below target in many economies. While the business cycle upswing in the US should continue, its beneficial effects could be undermined from time to time by deleveraging in the largest EM economies or by instabilities arising from the eurozone or from Brexit.

The **S&P GSCI Index** is an unmanaged world production-weighted index composed of the principal physical commodities that are the subject of active, liquid futures markets.

M2 is a measure of the money supply that includes not only cash and checking deposits, but also savings deposits, money market securities, mutual funds and other time deposits.

M4x is a measure of the money supply designed to cover the deposits of households, non-financial firms, and those other financial corporations that generally affect spending in the economy (nominal GDP).

A spot price is the current price at which an asset can be bought or sold for immediate delivery.

A trade-weighted index measures the foreign exchange value of a currency compared against certain foreign currencies.

Modus operandi is a Latin phrase that refers to a well-established method of operation.

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