

# International Economics Monthly

February 2015

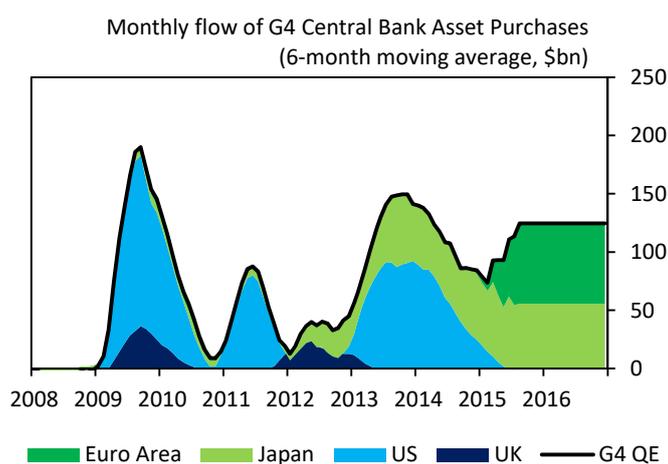
International Directorate



## THE CENTRAL BANK RELAY - PASSING THE QE BATON

**Main message:** Next month the ECB will join the Bank of Japan and start its sovereign QE programme – continuing the central bank QE relay that started six years ago. Together, the ECB and BoJ will be buying about \$125bn in assets per month. That is slightly less than the peak purchase rate seen in 2013/14, but should be sustained for 10 months longer. Beyond September 2016, we have our doubts about whether the ECB will be able to keep going with QE in its current form, given the ECB will come close to hitting its purchase limits on German debt by then. The ECB and BoJ's programmes are large enough to Hoover up all advanced economy government bond issuance over the next two years. That will require investors to move out of €A and Japanese government debt into other assets, consistent with the view that the depreciation in the euro and yen, and recent fall in US and UK yields, are partly down to spillovers from QE. There could be potential for further portfolio rebalancing effects as QE purchases are completed. But despite these effects, the Fed's impending policy tightening is likely to result in an overall tightening in conditions in global credit markets, given the size of the offshore dollar market relative to those in euro and yen, and the dollar's role as an exchange rate anchor. A box gives our take on the global data news this month.

**Chart 1:** Monthly flow of central bank asset purchases



Sources: BoE, Federal Reserve, Bank of Japan, ECB, DataStream

Note: Asset purchases have been converted to US\$ using current exchange rates (\$1.5 per pound, \$1.15 per euro, and 120 yen per \$). Projections are conditional on the assumption that the Fed/BoE will not run down their stock of asset purchases until after 2016.

**Table A:** Recent QE programmes in context

	Per month	Notes
Fed QE3 peak	≈\$85bn	
BoJ QQE 1	≈\$50bn	¥70tn per year
<b>Peak in 2013</b>	<b>\$135bn</b>	<b>Lasted 9 months</b>
BoJ QQE 2	≈\$56bn	¥80tn per year
ECB QE	≈\$69bn	€60bn per month
<b>Peak in 2015/16</b>	<b>\$125bn</b>	<b>Will last 19 months</b>

Source: Federal Reserve, ECB, Bank of Japan and Bank Calculations

Notes: BoJ asset purchases have been converted at a rate of ¥120 per \$, ECB purchases at \$1.15 per €. The BoJ announced QQE1 in April 2013 and QQE2 in October 2014. The Fed bought \$85bn in MBS and treasuries from Jan-Dec 2013, then tapered from Jan '14.

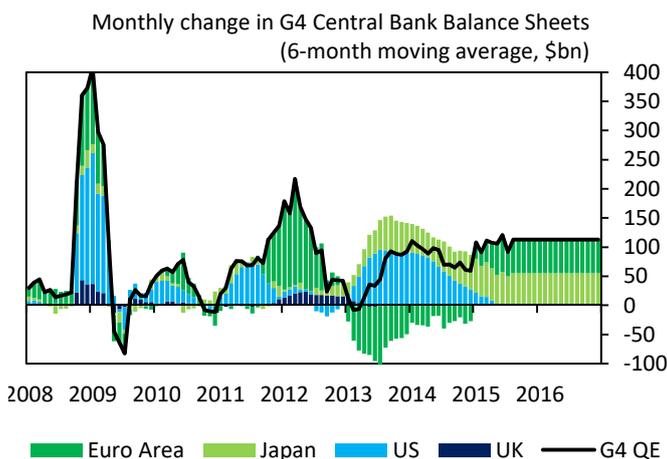
### The ECB takes up the baton...

Over the past six years, the Bank, Fed and BoJ have purchased \$6 trillion in assets – an average purchase rate of \$1tn per year or just under \$85bn a month. But averages aren't a good way to describe the actual pattern of global QE. A better characterisation is a relay race between the major central banks with bursts of overlapping activity by each (**Chart 1**). The US and UK carried the baton early on before passing it to the BoJ. The BoJ has recently gained a new running partner: the ECB. In this month's IEM we put the ECB's programme in context and discuss how the impact of ECB QE could flow overseas.

Although the ECB may have started its QE run late, the scale of its new programme is substantial, particularly when added to the BoJ's ongoing QQE programme. Together the BoJ and ECB will purchase around \$125bn in assets per month based on current market exchange rates (**Table A**). That is a little lower than the \$135bn peak flow we saw in 2013 when the Fed and BoJ were both buying, but that period of overlap only lasted 9 months. By contrast the ECB will keep buying until at least September 2016 (19 months) and the BoJ shows no sign of slowing either. If both central banks continue as now, they will purchase an extra \$2.5tn in assets between January 2015 and September 2016 – on a par with the size of QE1 in the US and UK in 2008-10.

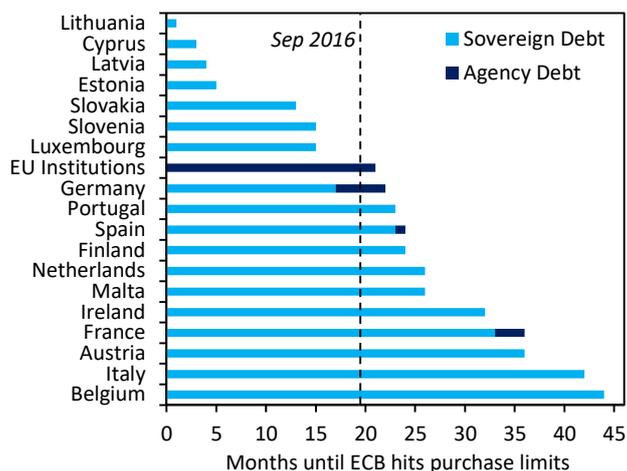
Moreover, when we account for broader changes in central bank balance sheets (**Chart 2**), the rate of expansion is actually higher now than in 2013/14 as the stimulus from the BoJ and Fed's purchases was partly offset by the ECB's LTRO repayments in 2013/14. So on a variety of metrics, the current flow of global QE looks set to be high.

Chart 2: Monthly change in central bank balance sheets



Sources: BoE, Federal Reserve, Bank of Japan, ECB, DataStream  
 Note: Asset purchases have been converted to US\$ using current exchange rates (\$1.5 per pound, \$1.15 per euro, and 120 yen per \$).

Chart 3: Months until ECB hits its QE purchase limits



Sources: Bloomberg, Eurostat, IMF, ECB and Bank Calculations  
 Notes: The stock of 2-30 year sovereign & agency debt is from Bloomberg. This is combined with IMF projections for debt issuance in 2015/16 and estimates of ECB purchases to calculate how long it will take the ECB to hold 25% of each issuers debt stock.

Table B: ECB asset purchase plan

€ Billions	Per Month	Total by Sep 2016
<b>Total Purchases</b>	<b>60</b>	<b>1140</b>
ABS and Covered Bonds	12	228
QE Programme	48	912
> European Agency Debt	5.8	110
> Sovereign Debt	42.2	802

Source: ECB and Bank Calculations  
 Notes: The ECB indicated that their purchases of ABS & covered bonds to date (approx. €12bn a month since September) would provide a guide to their private sector purchases going forward. For the additional €48bn of QE, 12% will be used to purchase debt issued by the EU agencies – principally the EIB and EFSF.

But the ECB may be hamstrung beyond September 2016

The ECB’s QE programme is open ended in principle. If deflationary concerns continue to plague the euro area the ECB has said it can and will do more. But in practice it may be difficult to extend QE beyond September 2016 in its current form. To get agreement on the programme, the ECB had to include various constraints on its purchases, including an arrangement not to buy more than 25% of a given bond issue so as to remain pari passu with private sector bondholders and avoid having a blocking minority in collective action clauses. Going beyond this limit may be possible, but it could raise questions over the legality of QE again. For now, the ECB will not buy more than 25% of each country’s eligible debt stock.

For smaller EA countries, which don’t have large stocks of long-term debt, this constraint will bind in a matter of months (Chart 3). The ECB will be aware of this constraint and will have agreed a workaround to keep the programme going until September 2016. But it is less clear such an arrangement is in place with all countries. The ECB is likely to hit its purchase limits for German debt around September 2016. Purchases of EU institutional debt, which account for a non-trivial share of the QE programme (Table B), face similar timing constraints. Reading between the lines, the duration of the ECB’s programme seems to have been calibrated based on these constraints. To extend QE beyond 2016 would either require relaxing the 25% purchase limit, allowing purchases to be funnelled to countries with the largest debt stocks, or buying other assets (e.g. corporate debt). Either way, September 2016 is a key decision point.

How will ECB and BoJ QE spill overseas?

We have already seen sizable asset price moves in the build up to and aftermath of BoJ and ECB QE.<sup>1</sup> Currency moves have been particularly stark over the past six months: the euro and yen ERIs have fallen 7%, the dollar is up 14% and sterling is trading ‘mid-Atlantic’ (up 4%). A possible explanation here is particularly potent portfolio rebalancing effects from QE. With monetary policy prospects diverging, higher US and UK yields may provide an incentive - following sales of €A and Japanese debt - to switch into gilts and US treasuries. In previous QE episodes the G4 economies tended to be pulling in the same direction so it was EMEs that received the bulk of carry-trade flows.

The ECB & BoJ’s QE purchases are large enough to both exceed net debt issuance by their governments. Again this is unusual compared with other bouts of QE and implies that private investors will have to actively sell €A and Japanese debt in order for the ECB and BoJ to meet their purchase targets. The ECB will buy €800bn of sovereign debt over 2015-16, versus net issuance of around €350bn. That means the private sector must sell €450bn (\$520bn). In Japan, the BoJ is buying ¥80tn a year and annual issuance is about ¥25tn, leaving ¥110tn in private sector sales (\$900bn).

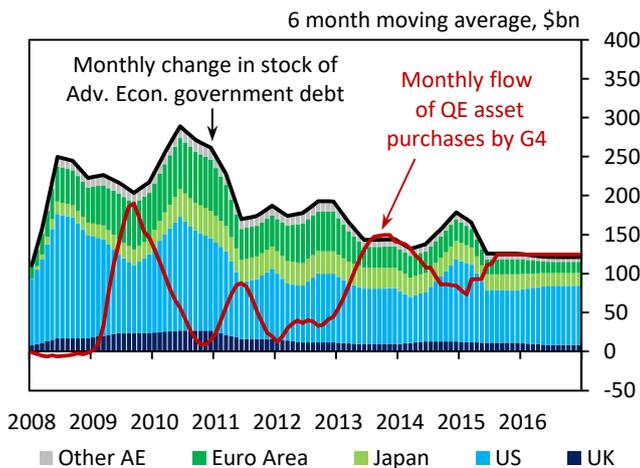
**Table C: Ownership of government debt before QE**

Proportion as of:	US '08 Q3	Japan '13 Q1	UK '08 Q4	EA '14 Q3
Households	4%*	3%	2%	7%
Banks	2%	39%	4%	16%
Ins. & Pension Funds	13%	37%	38%	14%
Other Financial Inst.	6%	4%	22%	5%
Foreign Holdings	57%	4%	33%	52%
Non-financial firms	8%	1%	0%	2%
Central Bank	11%	12%	0%	4%

Source: JP Morgan

Notes: \*For the US, households include hedge funds. Figures show proportion of government bonds held by sector as a share of the outstanding stock of government debt at time of QE inception.

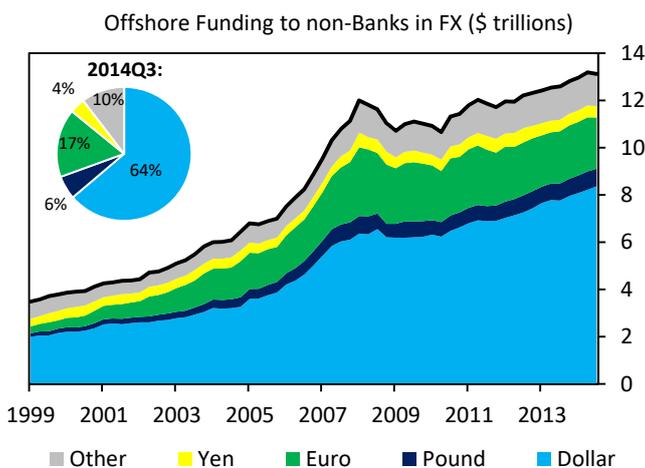
**Chart 4: Flow of debt issuance and asset purchases**



Sources: Fed, ECB, BoJ, BoE, IMF and Bank Calculations

Notes: For the US we include the stock of agency debt issued by Fannie Mae and Freddie Mac with sovereign debt. Forecasts are based on the IMF's sovereign debt projections. Debts in local currency have been converted to dollars at current exchange rates. 'Other AEs' include Australia, Canada, Denmark, Hong Kong, Norway, Singapore, Sweden and Switzerland.

**Chart 5: Size of offshore credit market to non-banks**



Sources: BIS and Bank Calculations

Notes: Data are the aggregation of bank loans to non-banks extended in foreign currency, and internationally issued debt securities by PNFCs, governments and non-bank financial institutions. The latter excludes debt securities issued in domestic currency by the US, EA, Japan, UK, Australia, Switzerland & Canada.

Who will sell and what will they buy? **Table C** shows the split of government bond holdings across jurisdictions before QE. Within the euro area, banks are the largest domestic holders. If they reduce their holdings, they are perhaps most likely to switch into other zero-risk weighted assets in order to maintain capital positions. Purchases of other AAA/AA rated sovereign debt are most obvious. That said liquidity requirements may limit how much they are willing to sell. Foreign investors may be more willing given their large holdings and the draw of higher yields elsewhere. The international focus of such investors also makes a portfolio shift across borders more likely, increasing the chance that ECB QE has been driving down yields in the US & UK in anticipation of such flows.

For Japan, foreigners hold very little government debt so any rebalancing will be by domestic firms: mainly banks, insurers and pension funds. Such firms may be less likely to shift their portfolios overseas, and this may partly explain why the first round of QE in 2013 did not result in large portfolio outflows from Japan (quite the opposite in fact – capital was repatriated). But this time could be different because QQE2 was accompanied by an explicit change in portfolio strategy by Japan's \$1tn Government Pension and Investment Fund. The GPIF is seen as a bellwether for other Japanese investors and is shifting away from domestic bonds to equities and foreign bonds. Capital is also now flowing out of Japan again.<sup>2</sup> Given Japanese investors tend to favour advanced economy bonds, some of these flows are likely to be destined for the US and UK.

Another way of making this point is to note that the BoJ and ECB's purchases are large enough to Hoover up all advanced economy government debt issuance over the next two years (**Chart 4**). So if investors want to maintain their holdings of AE bonds they will have to either refuse to sell to the ECB/BoJ or switch into other AE sovereigns. Markets will have priced in these expected portfolio shifts, but given the uncertainties over how investors may react, there could be potential for further moves in market prices as the purchase programmes complete and portfolios rebalance.

But even though the ECB & BoJ's latest programmes may have spilled overseas, on balance the Fed's impending policy tightening is likely to result in an overall tightening in global credit markets conditions in the months ahead. That is because of the dominant role of the dollar in FX lending (**Chart 5**) and its role as a currency anchor.<sup>3</sup> ECB and BoJ QE may delay the Fed's lift-off date by a few months by pushing up on the dollar and decreasing near-term inflationary pressure in the US, but at best this will buy time for borrowers with dollar debts to prepare for tighter financing conditions. It seems unlikely that euro and yen funding will be ramped up quickly to fill the gap, raising uncertainties for EME corporates with large dollar debts.<sup>4</sup>

## BOX: Assessment of data and policy news on the month

Region	Judgement on the month
Euro area	GDP growth surprised to the upside, at 0.3% oqa. Inflation fell further in January, to -0.6% oya, but the pick-up in oil prices provides small upside news to our short-term inflation forecast.
US	Employment growth continued at a strong pace, NFPs rose 257k in Jan and Nov & Dec data were revised up by 147k in total. Unemployment rose by 0.1pp to 5.7% in Jan due to rising participation.
Asia/EMEs	The PBOC cut the RRR by 50bp. Japan exited its technical recession, but with concerns over policy effectiveness. Elsewhere, quarterly growth in Q4 tended to show momentum picking up.
World activity	JPM export orders PMI fell 0.3 to 50.9 in Jan, but the world output PMI rose 0.4 to 52.8. CPB data showed strong world trade growth at 1.9% (3m-on-3m) in Nov and IP growth rose to 0.7%.
Commodities	Brent rose 10% to \$59pb as production forecasts were cut back due to low prices.

## EURO AREA:

Near-term risks of a disorderly Greek exit have diminished somewhat following last week's eurogroup agreement, but there remain a number of sticking points even before the interim deal expires. Reaching a comprehensive agreement in the summer will be even more challenging. [redacted] addresses the likelihood and impact of Greek exit in more detail.

Euro-area GDP grew by 0.3% oqa in Q4, 0.1pp stronger than the Feb *IR*. Germany accounted for much of our news, with growth of 0.7% oqa driven by stronger private domestic demand. Activity growth in France (0.1% oqa) and Italy (0.0% oqa) remained muted, while Spain continued to expand strongly (0.7% oqa). Alongside the improvement in the hard data, surveys have continued to pick up: the composite PMI rose to 53.5 in February - close to last summer's highs; and consumer confidence jumped to its highest level since 2007. But inflation again surprised to the downside in January, falling by 0.4pp to -0.6% oya. Our news was in core inflation, and we expect it to persist in the annual rate. However, the pick-up in euro oil prices on the month means we now expect inflation to stabilise at -0.6% oya in February, rather than falling further.

## UNITED STATES:

Employment growth beat market expectations again, with NFPs increasing by 257k in January. Strong Nov and Dec figures were also revised up by a combined 147k. This puts job creation over the last three months at over 1 million - the fastest pace of 3-month growth since 1997. But the HH survey showed the unemployment rose 0.1pp to 5.7% in Jan, as rapid employment growth was outpaced by labour force growth. The participation rate is now 62.9%, up 0.2pp. After an unexpected dip in December, average hourly earnings growth rebounded to 2.0% yoy, though this is still below pre-crisis levels.

The first estimate of Q4 2014 GDP growth was 0.7% qoq (2.5% yoy), above market expectations but slightly below our nowcast of 0.8%. As expected some of the erratic strength in Q3 (from net trade and gov. defense spending) unwound in Q4. But the rise in consumption growth suggested momentum remained strong into 2015. Our nowcast for Q1 is still 0.6%, as in the Feb *IR*.

## ASIA / EMEs

China - The PBoC eased policy again, cutting the RRR by 50bp, most likely due to slowing growth, falling inflation, and liquidity needs prompted by capital outflows. CPI fell to 0.8% in Jan from 1.5% in Dec, while core CPI fell 0.1pp to 1.2%. The Official NBS Manufacturing PMI (our preferred measure) registered 49.8 in Jan, 0.3pp lower than Dec. The HSBC PMIs also pointed to a moderation in activity: Services PMI fell 1.6 points to 51.8 in January, while the Manufacturing PMI remains below 50. Other activity measures are affected by the timing of Chinese New Year and provide a less reliable steer than usual.

Japan exited its technical recession, but questions remain over why momentum has been so weak in the face of so much policy stimulus. Q4 GDP came out at 0.6% QoQ (0.2pp higher than the Feb *IR*, and 0.3pp below consensus), while 2014 annual growth was flat.

Elsewhere, figures for quarterly growth in Q4 showed rising momentum: Mexico 0.7% (+0.2pp), Thailand 1.7% (+0.5pp), Philippines 2.5% (+1.8pp), Indonesia 1.5% (+0.3pp), Malaysia 2% (+1.2pp), South Africa 1% (+0.5pp), India 0.5% (-1.9pp). Indian growth moderated on the quarter, but was revised up substantially over the previous 2 years. FY14 was revised from 4.7% to 6.9%.

## COMMODITIES

Oil prices have risen 10% to \$59pb, and briefly broke \$60pb earlier in the month. Brent is now nearly \$15 higher than the 6-year low it reached in January, but remains 50% lower than the 2014 peak price. The recent rise in prices has been linked to early signs of supply cutbacks in high-cost producers. The IEA cut its 2015 production growth forecast for the second month running. Non-OPEC production is now expected to grow just 0.8mbpd in 2015 compared to the forecast in Dec predicting 1.3mbpd higher production. The number of US oil rigs in operation has also sharply decreased this month, and is now at its lowest level since 2011, indicating cost pressures in shale US shale production.

Other commodity prices fell over the month. Agricultural products are 0.1% lower while metals fell 3.2%.