28 November 2014 | 20 pages

Developed Markets
Western Europe

Euro Economics Weekly

ECB QE: Stacking Up The Evidence

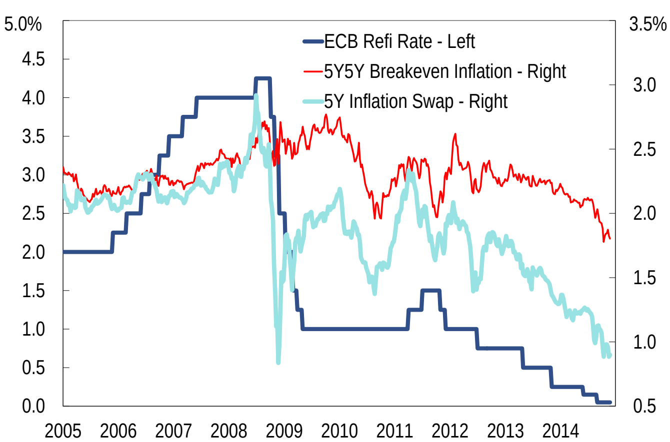
- **Staff forecasts will be a key input on 4 December** — We expect the Governing Council (GC) to highlight some downside risks to both the GDP and inflation trajectories at the 4 December monetary policy meeting. Inflation in 2015-17 will probably remain well below the ECB's price stability objective in our view and falls in medium-term inflation expectations argue strongly in favour of additional monetary policy action.
- **Ambitious balance sheet objectives require government bonds** — We calculate that to reach its €1tn balance sheet expansion objective over two years, the GC will need to purchase an extra €75bn of assets per quarter. While non-financial corporate bonds could help, the obvious solution would be to expand the scope of the purchase programme to government bonds. And even that may not be enough.
- **Probable language change to increase QE likelihood** — We look for a more dovish message in the statement, likely including references to the "composition" of the balance sheet and the "pace" of expansion. We continue to expect the GC to agree to launch a QE programme in Q1-15, most likely on 22 January.

Figure 1. Citi Forecasts

	\$/€	Euro Repo	10-yr Bunds	£/€	UK Bank Rate	10-Yr Gilt Bund
4Q 14	1.22	0.05	0.65	0.77	0.50	161
2Q 15	1.16	0.05	1.00	0.76	0.50	187

Source: Citi Research

Figure 2. Euro Area — ECB Refinancing Rate, 5Y5Y Breakeven and 5Y Inflation Swaps (%), Jan-05 to Nov-14



Sources: Eurostat, Bloomberg and Citi Research

Guillaume Menuet
+44-20-7986-1314
guillaume.menuet@citi.com

Ebrahim Rahbari
+44-20-7986-6522
ebrahim.rahbari@citi.com

Michael Saunders
+44-20-7986-3299
michael.saunders@citi.com

Antonio Montilla
+44-20-7986-3282
antonio.montilla@citi.com

Ann O'Kelly
+44-20-7986-3297
ann.okelly@citi.com

Click to play
Guillaume Menuet

ECB QE: Stacking Up The Evidence

The ECB Governing Council (GC) meets on Thursday 4 December for the last monetary policy meeting of 2014. The GC will decide whether its monetary policy stance remains appropriate, basing its judgment on i) the balance of risks around the latest staff macro-economic projections that will contain the first estimates for 2017, and ii) whether the pace of private sector asset purchases (covered bonds and ABS) is consistent with its expectations of balance sheet expansion. But there will also be two other important items on the agenda: to review some proposals made by ECB and Eurosystem staff on non-standard measures in the event of having to deliver additional monetary policy stimulus, and a final decision on the format of its Minutes that will start to be published in 2015. Overall, we expect the GC statement to convey a more dovish message, likely including references to the "*composition*" of the balance sheet and the "*pace*" of expansion. We continue to expect the ECB to launch a QE programme in Q1 2015, most likely on 22 January, to avoid a further dis-anchoring in inflation expectations (see Figure 2) and add credibility to the objective of expanding the Eurosystem balance sheet by €1tn. But there is a small risk that the ECB could also surprise the market and announce a QE programme on 4 December.

Will the ECB adopt a more dovish stance on Thursday?

We expect all key interest rates to be left unchanged, and the ECB to reiterate that its already-adopted measures will further ease the monetary policy stance, supporting its forward guidance and helping to reinforce the differences in the monetary policy cycles between major economies. More importantly, we believe that the GC will want to strengthen its language about the possible need to address risks of *"too prolonged a period of low inflation*". While keeping the sentence about the "*unanimous commitment to using additional instruments within its mandate*" should it become necessary, we expect some changes in the introductory statement to reflect the growing importance of balance sheet expansion at a time of record low HICP rates and deteriorating inflation expectations.

We would expect that some of the recent arguments presented by President Draghi will be added to the introductory statement, reinforcing the impression that the GC intends to defend its price stability mandate in the face of already low and declining inflation expectations. As a reminder, President Draghi has already commented on the balance sheet and inflation expectations during the 6 November press conference. He sought to clarify some of arguments presented with respect to the two contingencies that could trigger more easing. In particular, he stressed "*the correlation that exists between the balance sheet size and inflation expectations*". More recently, Mr. Draghi underscored on 18 November the importance of remaining "*alert to possible downside risks to our outlook for inflation*" and on 21 November made a reference to the possible need to "*step up the pressure and broaden even more the channels through which we intervene, by altering accordingly the size, pace and composition of our purchases*".

ECB Vice-President Vitor Constancio on 24 November also referred to the need to "*assess if indeed the programs are contributing to a pace of increase of our balance sheet that is compatible with the sort of expectation that we have* ". He also made a very clear reference to the GC having to gauge during the first quarter of 2015 if the already-announced direct purchases and TLTROs would be sufficient to drive the balance sheet back to the size it had in early 2012, warning that "*if not, we will have to consider buying other assets, including sovereign bonds in the secondary market, the bulkier and more liquid market securities available*".

A large number of executive board members and presidents of national central banks have discussed monetary policy in the last few weeks (see Figure 3).

Most of them either sounded more worried about the deteriorating inflation outlook and/or were willing to discuss some aspects of additional non-standard measures that the GC could adopt. Bundesbank President Jens Weidmann – who warned that that the debate about quantitative easing "*is distracting our attention from the true problems*" – was once again the main exception.

Figure 3. Euro Area – Recent Comments from ECB Governing Council Members, 18 -27 November 2014

Date	Speaker	Quotes
27-Nov	Constancio	The GC must "*closely monitor if the pace of the evolution*" of its balance sheet is in line with its expectations of going back to the size it had in early 2012. Mr. Constancio explained that the GC would be able to "*gauge better if that is the case during the first quarter of 2015*". He concluded that "*if not, we will have to consider buying other assets, including sovereign bonds in the secondary market, the bulkier and more liquid market securities available*".
26-Nov	Linde	December data would be key for an ECB decision on further measures. Mr. Linde noted that he saw a risk of a long period of very low euro-area inflation and GDP growth, adding that the ECB is doing what it can to expand lending.
25-Nov	Noyer	The balance sheet reference in the introductory statement "*should certainly be seen as a clear indication that further policy action, if necessary, will not be inhibited by any overall quantitative restraint or limit*".
25-Nov	Nowotny	Favours steady-hand policy for now, to be reassessed in 1Q15, saying: "*What we do in the first quarter is another matter. I think it would be too early. My personal view is that we have taken a series of measures and should observe the impact of these measures*".
25-Nov	Coeuré	Watching inflation very carefully, will review staff proposals at 4 December meeting – Coeuré argued that "*we'll have to understand how what we've already decided works – we're not going to rush to a new decision without knowing*", adding "*we have to look at the data around us, and we have to discuss thoroughly all possible options in particular when it comes to buying new assets*".
25-Nov	Weidmann	"*There is a prohibition of monetary financing in the treaties that puts up high legal hurdles, and for good reason*." Mr. Weidmann added that the debate about quantitative easing "*is distracting our attention from the true problems*," adding that "*there seems to be a conception that there is one silver bullet out there which is buying sovereign debt and once we embark on this this will save Europe from the low growth rates, from all our problems*."
24-Nov	Constancio	"*We are monitoring what will happen to those programmes… And in the first quarter of next year, we have to assess if indeed the programmes are contributing to a pace of increase of our balance sheet that is compatible with the sort of expectation that we have for those programmes*."
21-Nov	Draghi	Argued that "*the inflation situation has become increasingly challenging*", that the "*firm anchoring of inflation is even more critical in the circumstances that we face today*", that the ECB would "*broaden purchases if [downside] inflation risks materialise*". He stressed that the "*we will do what we must to raise inflation and inflation expectations as fast as possible, as our price stability mandate requires of us. If on its current trajectory our policy is not effective enough to achieve this, or further risks to the inflation outlook materialise, we would step up the pressure and broaden even more the channels through which we intervene, by altering accordingly the size, pace and composition of our purchases*".
21-Nov	Praet	"I*t's early now to talk about*" the possibility that the ECB would buy government debt. But Mr. Praet was quoted saying that the "*loss of economic momentum is worrisome, because additional shocks could easily put you in recession*", noting that the economy in the second and third quarter had been "*weak*" and that "*very likely the fourth quarter will be too*". Mr. Praet reiterates the ECB's commitment to having a sizeable monetary accommodation, stressing that "*it is our expectation that the balance sheet will go back towards what it was in March 2012*".
20-Nov	Rossi	The deputy governor of the Bank of Italy indicated that "*the euro zone is on the brink of deflation*". He noted that only two of its 18 countries had inflation above 1%, suggesting that the problem was to a large extent due to weak demand and stressed there was a risk that long-term inflation expectations would become "*unanchored*". Mr Rossi warned that "*the ECB's credibility in meeting its price stability goal is at stake*".
18-Nov	Draghi	On balance sheet expansion, Mr. Draghi highlighted that "*we are committed to scale the total magnitude of our measures – lending operations as well as outright purchases – up to a size that can deliver the intended support to inflation and the recovery of the euro area economy*". Mr. Draghi warned that "*we need to remain alert to possible downside risks to our outlook for inflation*", and reminded the European Parliament that further measures "*could include further changes to the size and composition of the Eurosystem balance sheet*".
18-Nov	Praet	"*Headline inflation plus the indirect effect may have an impact on inflation expectations and confidence*", adding that "*if that would be the case [that deflation worries grow], for us the incentive to act would be bigger, of course*". On the subject of differences of opinions within the ECB Governing Council, Mr. Praet noted that "*there is a lot of diversity [of views in the ECB Governing Council]), but there is strong commitment to the mandate, and it also means that if we really went into a situation of deflation, no doubt all the tools would be used*", adding that "*the question is always what is the timing*". On balance sheet expansion, Mr. Praet stressed that "*we say we are confident we are going to get the volume and, if it is not sufficient, we are ready to take additional measures and broaden the base of purchases immediately*".
18-Nov	Mersch	Indicated that "*easing of monetary policy cannot work effectively when the European economy is structurally not in good shape*". He also stressed that he would "*feel a lot better if those politically responsible clearly committed to lowering the risk for the ECB*". With respect to additional policy actions, Mr. Mersch noted that "all *possible options should be analysed for their costs and their benefits, as well as checked for efficiency and legal feasibility*". Mr. Mersch explained that if action was needed, the ECB's hands wouldn't be tied as it could theoretically purchase government bonds or other assets such as gold, shares, or exchange traded funds (ETFs).

Sources: Bloomberg, Reuters, European Central Bank and Citi Research

Would this be justified by the staff forecasts and inflation markets?

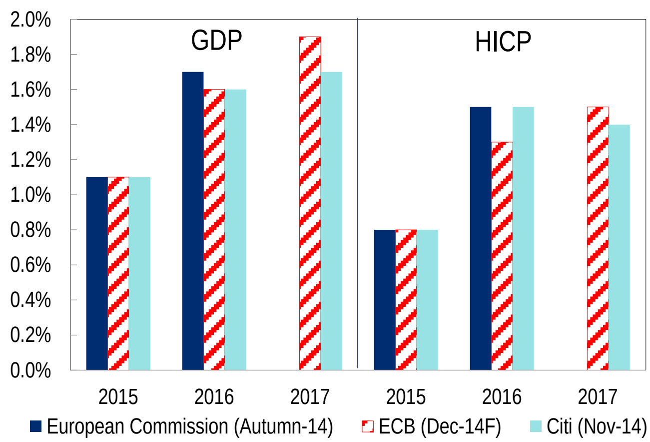
A more dovish stance seems probable given the expected deterioration in staff projections and inflation metrics. Indeed, we expect the staff to ratchet down its GDP and inflation projections for both 2015 and 2016, suggesting that the first estimate of 2017 inflation will not be consistent with its price stability mandate (see Figure 4). We expect the Eurosystem staff projections to lower the 2015 **inflation**

mid-point by 0.3pp to 0.8% and the 2016 inflation mid-point by 0.1pp to 1.3%. For 2017, the inflation mid-point is likely to be around 1.5%, perhaps even lower. For economic activity, the staff projections will probably lower the 2015 **GDP mid-point** by 0.5pp to 1.1% and the 2016 GDP mid-point by 0.3pp to 1.6%. For 2017, the GDP mid-point is likely to be close to the previous three-year-ahead forecast around 1.9%.

The flash estimate of euro area HICP published on Friday confirmed a slowdown in the inflation rate to a new cycle low of 0.31% YY in November. Although the medium-term staff projections will likely envisage an upward trend in inflation over the forecast horizon, our central forecast (which has included QE as a baseline since April 2014) does not envisage that HICP rates will return to target before 2019. Core inflation is also undershooting the ECB's forecasts: this problem was highlighted by President Draghi in his Frankfurt speech last Friday. He stressed that "*a low reading for core inflation for such a period of time indicates that it is not only temporary factors that are operative: underlying demand weakness is also playing a role*".

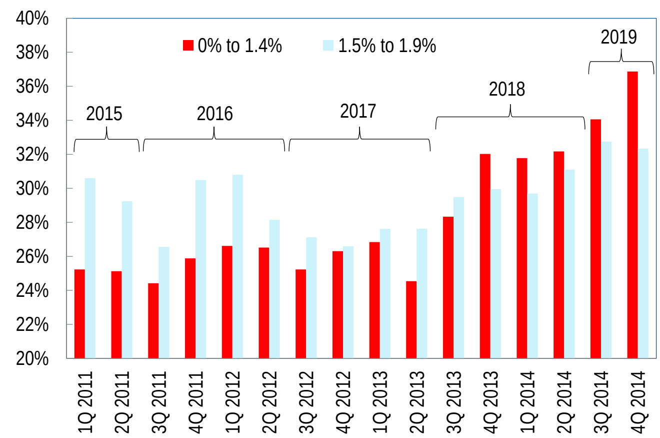
There is also a much greater degree of concern about the firm anchoring of inflation expectations. Mr. Draghi remarked that the Survey of Professional Forecasters (SPF) indicates some declines in measures of inflation expectations "*at all horizons*". We highlight the noticeable change in the proportion of respondents associating a greater probability of inflation being contained in the 0-1.4% range than in the 1.5-1.9% range since the November 2013 SPF when the survey first estimated 2018 inflation. Before that time, the majority of respondents had estimated that the ECB would be able to deliver an average inflation rate of between 1.5% and 1.9% in five years. This is no longer the case. In the November 2014 survey, the proportion of respondents expecting inflation to be between 0% and 1.4% stood at 37%, some 5pp above the 32% expecting inflation to be between 1.5% and 1.9% in 2019. This is a record gap (see Figure 5).

Figure 4. Euro Area – GDP and HICP Forecasts (%), 2014-17



Note: our baseline forecasts have included ECB QE since April 2014
Source: European Central Bank, European Commission and Citi Research

Figure 5. Euro Area – SPF, 5Y Ahead Inflation, Cumulative Distribution of Projected Outcomes (%), 1Q-11-Q4-14



Sources: European Central Bank and Citi Research

Could the ECB announce additional non-standard measures?

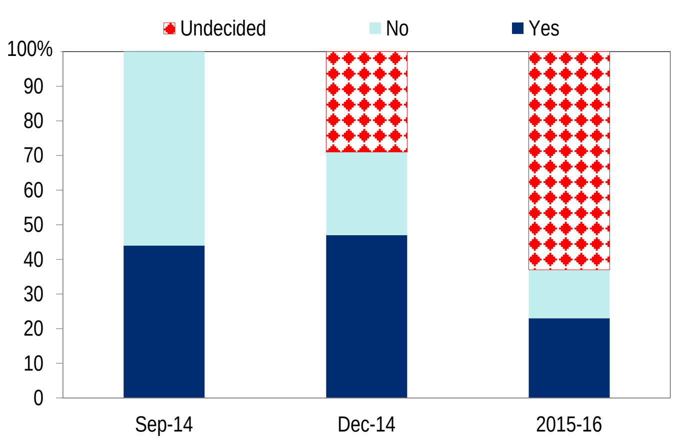
All the ingredients for a more dovish statement at the December meeting are present in our view. Yet, we do not believe that the GC will make new announcements that could impact the dynamics of its balance sheet**. On the TLTRO in particular**, we have some doubts about the feasibility of a last minute change in the modalities

ahead of the second allotment on 11 December. Legal documents suggest that the September and December facilities were designed as a joint effort to ensure a large initial take-up of long-dated ECB liquidity. Hence, we do not believe that lowering/removing the 10bp fixed spread over the MRO rate would increase the number of potential bidders on 11 December as counterparties interested in participating (and those that participated in the September TLTROs) were required to send completed reporting templates to NCBs on 20 November. If the take-up were to be much smaller than the ECB anticipates (we estimate €165bn and believe some GC members are more optimistic), and the ECB wanted to aggressively support lending to the real economy, it could increase the three times cumulative multiple of each counterparties' net lending in the subsequent six LTROs (March, June, September and December 2015, and March and September 2016) and/or lengthen the TLTRO maturity date of September 2018 to ensure that each subsequent take-up has an exact maturity of four years.

We note from the ad-hoc questions in the Bank Lending Survey (BLS) dated October 2014 that a majority of banks (56% vs. 44%) did not participate in the September TLTRO and that 53% either would not participate (24%) or were undecided (29%) about participating in the December TLTRO (see Figure 6). The main reason for not getting involved is the absence of funding constraints (63% for September and 67% for December, rising to 89% for the additional TLTROs in 2015 and 2016). Collateral constraints are listed as the main obstacle by 20% of the banks intending not to participate in the December TLTRO. Concerns about insufficient loan demand amount to a paltry 3% (see Figure 7).

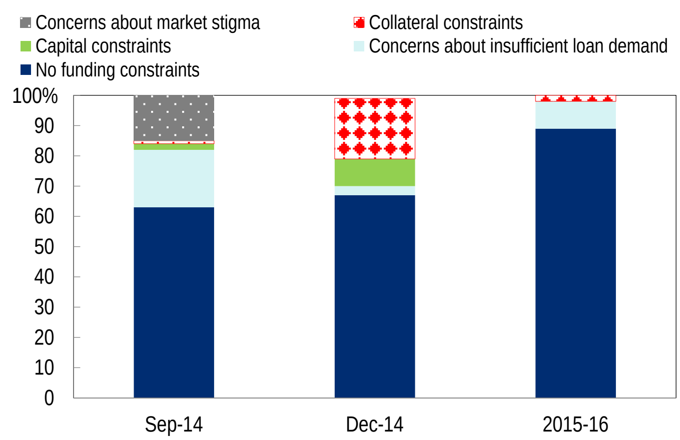
We doubt therefore that the ECB can incentivise banks (and particularly those of the core) to bid for additional ECB liquidity and at the same time charge those with excess reserves a negative deposit rate of 20bp. This state of affairs limits the extent of these TLTRO contributions to the ECB's objective of expanding its balance sheet, unless the ECB were to broaden the collateral list even more.

Figure 6. Euro Area – BLS: Participation in TLTROs (% of Respondents), Oct-14



Sources: European Central Bank and Citi Research

Figure 7. Euro Area – BLS: Reasons for Not Participating in the TLTROs (% of Respondents), Oct-14

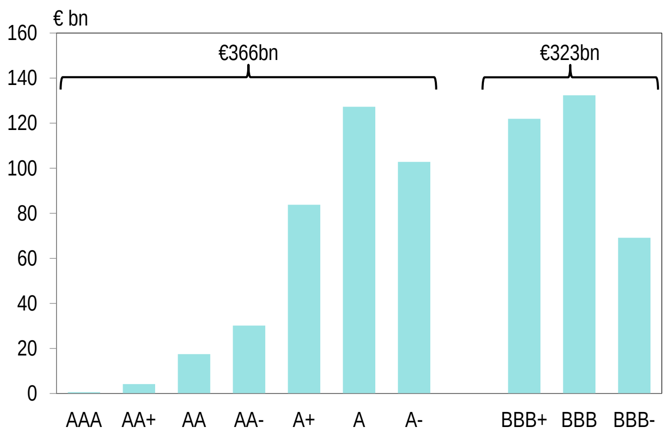


Sources: European Central Bank and Citi Research

Similarly, we suspect that the ECB will not feel comfortable announcing on 4 December that it intends to expand the scope of its private sector asset purchase programme to include non-financial corporate bonds. The amount of eligible corporate bonds is largely similar to that of covered bonds (€1,412bn vs. €1,489bn respectively as of June 2014 according to ECB figures). However, using Bloomberg data, the average composite rating profile of corporate bonds would likely limit the

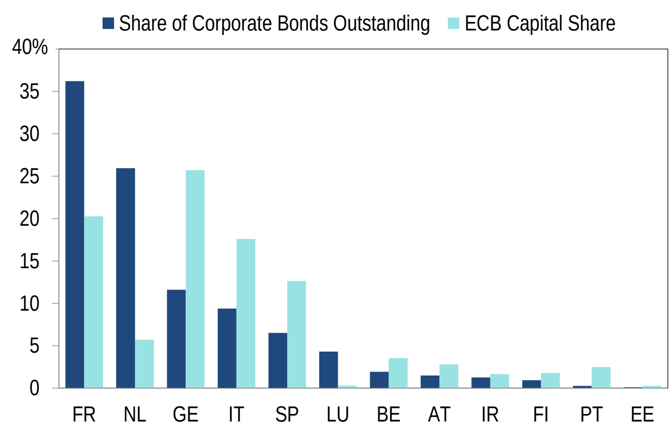
size of possible purchases assuming that the ECB were to follow the A- collateral criteria (see Figure 8). If so, the investable universe would then likely be restricted to around €365bn, with the ECB only buying a portion of that amount. Yet, the ECB could also decide to incorporate the BBB-rated papers, to be consistent with covered bonds and ABS programmes, despite its preference for "*securities with good rating and low risk*" according to Austria's Nowotny. It is noticeable that the distribution of issuers is also different from the ECB's capital key (see Figure 9), despite obvious distortions for the Netherlands and Luxembourg which tend to capture the domiciliation of corporates for tax reasons. For instance, while Germany represents 25.7% of the Eurosystem, the German corporate bond market is only 11.6% of the stock of outstanding corporate bonds at the EA-12 level. Conversely, while France accounts for 20.3% of the Eurosystem capital key, the share of outstanding bonds issued by French corporates represents 36.2% of the EA-12 market. For a GC focusing on capital key (or GDP) contributions, the rating threshold and uneven distribution aspects could be a concern. Having begun purchases of ABS on Friday 21 November, we believe that the GC will probably prefer to highlight the positive effects that these programmes are having on spreads before widening the net to include another asset class and perhaps create the impression that it miscalculated how much could be bought from covered bonds and ABS in the first place. An added argument is that while doves want more, the hawks have expressed some clear opposition to corporate bond purchases.

Figure 8. Euro Area – Rating Breakdown of €-Denominated Non-Financial Corporate Bonds Outstanding, € billions, Nov-14



Note: we apply the rating breakdown from the total universe of euro-denominated bonds to the EA-12 subset.
Sources: Bloomberg and Citi Research

Figure 9. Euro Area – Share of €-Denominated Non-Financial Corporate Bonds by Country of Issuance and ECB Capital Keys (%), Nov-14



Sources: Bloomberg and Citi Research

Is the balance sheet expanding at an "*adequate*" pace?

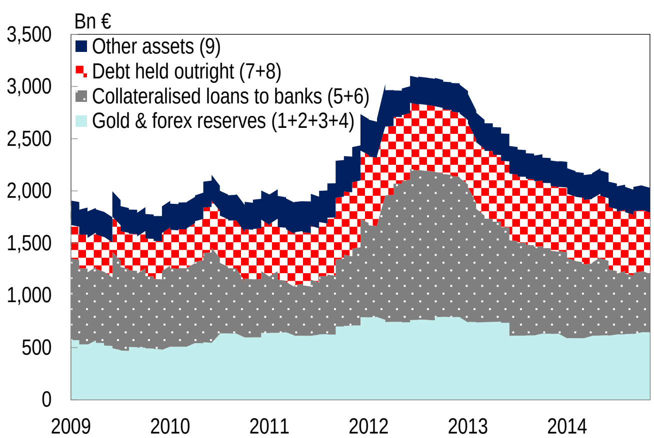
Since the end of September, the Eurosystem's balance sheet has shrunk by around €3bn, mainly because banks have continued to repay the 3-year LTRO liquidity ahead of the January and February 2015 maturity dates (see Figure 10). This contraction in the ECB's balance sheet is occurring despite some €12.7bn of covered bond purchases since the start of CBPP3 and €82.6bn of TLTRO in the September take-up. **Adding €1tn to the balance sheet by the end of 2016 (there have been numerous references to a two-year horizon) would mean net inflows of around €9.6bn per week or around €42bn per calendar month**.

Once we take into account the outflows (LTRO redemptions and the gradual run-off of the SMP), and based on our assumptions of €250bn of covered bonds and

€150bn of ABS, **we calculate that to reach its €1tn objective the GC will also need to purchase around €600bn of other assets, meaning €75bn per quarter for the next eight quarters** (Q1-15 to Q4-16). Although non-financial corporate bonds could help fill this gap, we think that managing €25bn of other purchases per month – on top of a combined €20bn per month of covered bonds and ABS purchases – would prove a tall order if the GC were to decide to stick to private sector assets.

In our view, the obvious solution would be to purchase government bonds. Our fixed income strategy research colleagues estimate that the size of the gross central government bond issuance for EMU-11 countries will be around €1,859bn (€957bn in 2015 and €902bn in 2016). This would represent on average €77.5bn of gross issuance per month over 2015-16. Even if the GC were to decide to focus only on government bonds for its next purchase programme, buying slightly less than one third (€25/77.5) of the monthly gross EMU-11 issuance would be feasible. Agency debt would also probably need to be added to the list, reducing the share further. The GC could also decide on a compromise solution and purchase only a quarter of the gross issuance (around €19.5bn), making up the difference with non-financial corporate debt (€5.5bn).

Figure 10. Euro Area – Breakdown of Weekly Eurosystem Balance Sheet Assets (€bn), Jan-2009-Nov-2014



Notes: 1 (Gold and Gold Receivables), 2 (Claims on Noneuro Res in Foreign Currency), 3 (Claims on Euro Res in Foreign Currency), 4 (Claims on Non-Euro Residents in Euros), 5 (Lending to Euro Area Cred Inst in Euro), 6 (Other Claims on Euro Area Cred Inst in Euro), 7 (Securities of Euro Area Resid in Euro), 8 (General Govt Debt Denominated in Euro), 9 (Other assets)

Sources: European Central Bank and Citi Research

Figure 11. Euro Area – Key Indicators to be Released between Dec 1 and Feb 13

Key data released in December		Key December / Q4 data	
Date	Indicator	Date	Indicator
01-Dec	Manuf. PMI, Nov Final	16-Dec	Composite PMI, Dec Flash
03-Dec	Composite PMI, Nov Final	22-Dec	Consumer Confidence, Dec
03-Dec	Retail Sales, Oct	02-Jan	Manufacturing PMI, Dec Final
03-Dec	Real GDP, Q3 (2nd Est)	06-Jan	Composite PMI, Dec Final
04-Dec	ECB Meeting	07-Jan	HICP, Dec Flash
12-Dec	Industrial Production, Oct	08-Jan	Economic Confidence, Dec
12-Dec	Employment, Q3	22-Jan	ECB Meeting
16-Dec	Composite PMI, Dec Flash	29-Jan	M3 Money Supply, Dec
17-Dec	HICP, Nov Final	30-Jan	Unemployment rate, Dec
22-Dec	Consumer Confidence, Dec	04-Feb	Retail Sales, Dec
30-Dec	M3 Money Supply, Nov	12-Feb	Industrial Production, Dec
		13-Feb	Real GDP, Q4 Flash

Source: Bloomberg, ECB and Eurostat, Citi Research

When will the GC agree to launch its QE programme?

Numerous GC members have made some clear references to Q1 2015 as the appropriate timeframe to review whether the current private sector asset purchase programmes and TLTROs would prove sufficient to impart the required upward momentum to the Eurosystem's balance sheet. Bank of Spain Governor Linde in particular made the point on 26 November that "*December data would be key for an ECB decision on further measures*". We list in Figure 11 the main indicators that will be released either in December or those to be released in January but covering the December period. It is clear that by the first monetary policy meeting of 2015 on 22 January, the GC will have at its disposal a significant number of new surveys and hard data on which to base its judgment as to whether economic activity and inflation readings require a further easing of the policy stance. Some clarity is also

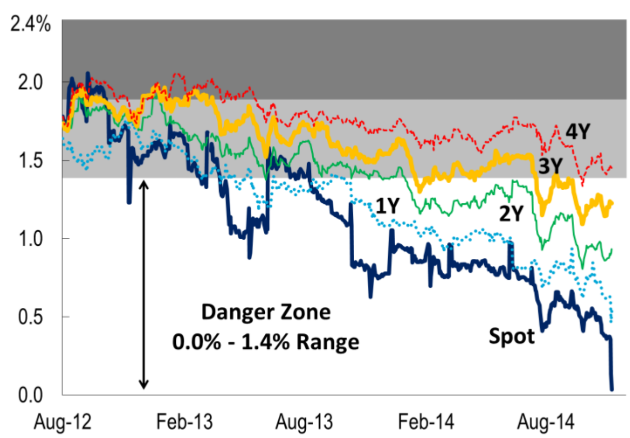
expected from the ECJ on 14 January when the advocate general will give an opinion on the OMT case brought by the German Constitutional Court.

Specifically, the GC will have the final December composite PMIs (6 January), the flash December HICP (7 January) and December economic confidence readings from the European Commission (8 January). Money supply and credit data for November are also released on 30 December, while November retail sales and unemployment will come out on 7 and 8 January, respectively. We believe that these will provide enough information for the GC, and the six-week gap since the 4 December meeting will probably be used productively to assess in detail which of the non-standard measures, or any combinations thereof, will have the maximum impact on the Eurosystem's balance sheet while avoiding excessive credit risk taking. **Speed is of the essence, according to President Draghi in his latest speech. We agree with him and believe that the burden of proof on the need to act will be sufficient in late January to convince even some of the perennial hawks on the Governing Council that a forceful defence of the price stability mandate is essential**. This would not only avoid damaging the ECB's credibility but would also reduce the risk of having to do even more later, for instance at the 5 March monetary policy meeting.

Conclusion

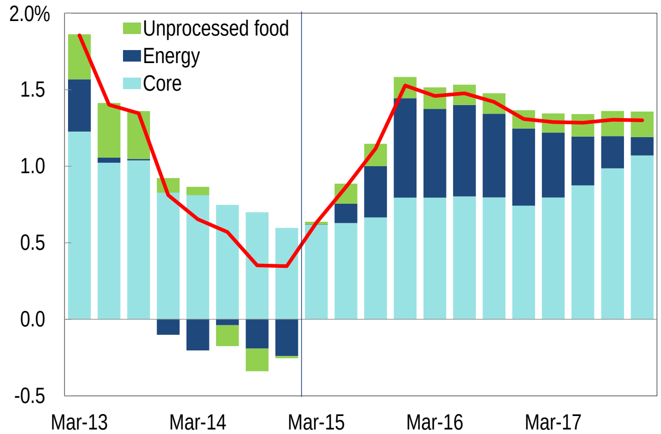
Upcoming staff projections will likely demonstrate that the GC will struggle to bring inflation back to target not only in two years, but also beyond. This is also the clear message given by the SPF and the inflation market (see Figure 12). Given the limited prospects of the uneven and fragile recovery morphing into a much stronger upswing, we think there is a substantial risk that core inflation will also struggle to rebound (see Figure 13). Finally, because of the difficulties that the ECB will likely encounter in expanding its balance sheet by relying exclusively on private sector assets purchases, we believe that a growing majority of GC members will decide to launch a QE programme in Q1-15, most likely as early as 22 January. Acting soon could also be interpreted by some of the doves as reducing the risk of having to deliver even more stimulus (QE2 for example?).

Figure 12. Euro Area –1-Year Inflation Spot and Forwards (%), Aug-12-Nov-14



Sources: Bloomberg and Citi Research

Figure 13. Euro Area –HICP and Main Subcomponents, (% YY), Q1-13-Q4-17F



Sources: Eurostat and Citi Research

Figure 14. Key Economic Indicators (1 December – 5 December)

During The Week		Forecast	Last
08:00	UK: Halifax House Prices, Nov		
Monday 1 December		**Forecast**	**Last**
07:30	Sweden: Manufacturing PMI, Nov	51.8	52.1
08:00	Norway: Manufacturing PMI, Nov	50.3	50.7
09:00	Norway: C2 Credit Indicator, Oct	5.3% YY	5.3% YY
09:00	Italy: GDP Details, 3Q	-0.1% QQ, -0.4% YY	-0.2% QQ, -0.3% YY
09:00	Euro Area: Manufacturing PMI, Nov Final	50.5	50.7
09:30	UK: Manufacturing PMI, Nov	52.5	53.2
090:30	UK: Mortgage Approvals, Oct	63,000 MM, -7.7% YY	61,267 MM, -8.7% YY
	Italy: Budget Balance, Nov		
Tuesday 2 December		**Forecast**	**Last**
08:00	Spain: Registered Unemployment, Nov	-3K MM	+79K MM
09:30	UK: Construction PMI, Nov		
09:30	UK: M&A Involving UK Companies, 3Q		
10:00	Euro Area: Industrial Producer Prices, Oct		
16:30	Ireland: Exchequer Return, Nov		
Wednesday 3 December		**Forecast**	**Last**
06:45	Switzerland: GDP, 3Q		
07:30	Sweden: Services PMI, Nov	57.4	57.7
09:00	Euro Area: Services PMI, Nov Final	51.3	52.3
	Composite PMI, Nov Final	51.4	52.2
09:30	UK: Services PMI, Nov	57.0	56.2
10:00	Euro Area: Retail Sales, Oct SA	0.7% MM, 1.9% YY	-1.3% MM, 0.8% YY
11:00	Ireland: Unemployment Rate, Nov		
c. 12:30	UK: Chancellor Osborne makes *Autumn Statement* to Parliament		
15:00	Bank of Canada Interest Rate Announcement		
Thursday 4 December		**Forecast**	**Last**
06:30	France: Mainland Unemployment Rate, 3Q	9.9%	9.7%
	Mainland Unemployment Change, 3Q	35K	10K
08:30	Netherlands: Consumer Prices, Nov		
12:00	UK: MPC Outcome		
12:45	ECB Outcome – Press Conference at 13:30		
Friday 5 December		**Forecast**	**Last**
00:01	UK: KPMB/RECE Report on Jobs		
07:00	Germany: Incoming Orders, Oct	-0.1% MM, -0.6% YY	0.8% MM, -1.0% YY
07:00	Germany: Insolvencies, Sep		
08:00	Spain: Industrial Production, Oct	2.5% YY	1.1% YY
08:30	Sweden: Industrial Production, Oct	0.5% MM	-1.1% MM
08:30	Sweden: Services Production, Oct	0.2% MM	0.8% MM
09:00	Norway: Manufacturing Production, Oct	0.4% MM	-2.1% MM
09:30	UK: BoE/GfK Inflation Attitudes Survey		
10:00	Euro Area: GDP, 3Q (2nd Estimate)	0.2% QQ, 0.8% YY	0.1% QQ, 0.8% YY
11:00	Ireland: Industrial Production, Oct		

Sources: National statistical offices, central banks and Citi Research

Figure 15. Economic Indicators – Comments: Euro Area, Germany, France, Italy and Spain

Euro Area			
Dec 1 09:00 London Time	*Manufacturing PMI, Nov Final*	Forecast; 50.5	Prior: 50.7
	The manufacturing PMI is expected to confirm that manufacturing activity expanded at a slower rate in November. There could be some room for a slight upward revision to the 50.4 flash PMI based on the slightly better readings seen in the German Ifo and Dutch manufacturing confidence reports released since the flash PMI. Overall, while we suspect that the weaker euro will contribute to supporting business confidence in the medium-term, we expect that signs of deceleration in the global economy will likely dampen manufacturing sentiment until the spring of 2015.		
Dec 3 09:00 London Time	*Services PMI, Nov Final* *Composite PMI, Nov Final*	Forecast: 51.3 Forecast: 51.4	Prior: 52.3 Prior: 52.2
	The flash services and composite PMIs recorded drops in late November that were much larger than expected, prompting ECB President Draghi to indicate that *"a stronger recovery is unlikely in the coming months, with new orders falling for the first time since July 2013"*. We expect the final estimate to confirm a slowdown in the pace of economic activity in both services and the composite measures. So far, the October/November composite PMIs stand 1.0 point below the 3Q average. We expect that Italy and Spain likely outperformed both France and Germany in the final reports.		
Dec 3 10:00 London Time	*Retail Sales, Oct*	Forecast: 0.7% MM, 1.9% YY	Prior: -1.3% MM, 0.8% YY
	We look for a rebound in retail spending on October, particularly after a sizeable gain in Germany after a very large fall in September. Our 0.7% MM forecast would imply a modestly positive start to the fourth quarter, with retail sales 0.2% above their 3Q average. We see room for some pull-back in the final few couple of months of 2014, in keeping with the below average trend in retail business expectations and persistently weak October retail PMI (47.0). Overall, we think that there are still downside risks to our forecast of a rebound in household expenditure in 4Q.		
Dec 5 10:00 London Time	*GDP Details, 3Q*	Forecast: 0.2% QQ, 0.8% YY	Prior: 0.1% QQ, 0.8% YY
	GDP growth is expected to have accelerated a little in the third quarter, but the annualised rate of expansion remains well below 1% for the second successive quarter. We look for positive contributions to GDP growth from private consumption and public consumption, but a drag from fixed investment and most likely from net trade too. Looking ahead to 4Q-14, we forecast another quarter of economic activity below 1%, a trend that we anticipate could well extend to 2Q-15. The output gap is not closing much, adding to downside risks to core (and headline) inflation.		
Germany			
Dec 5 07:00 London Time	*Incoming Orders, Oct*	Forecast: -0.1% MM, -0.6% YY	Prior: 0.8% MM, -1.0% YY
	In October, we expect German industrial orders to remain relatively flat. 3Q data on orders were very volatile, in part due to calendar-related factors. But the overall trend was very subdued and orders were flat in 3Q relative to 2Q. Surveys continue to suggest very modest manufacturing activity and order flows, leading us to expect orders to remain subdued in 4Q.		
France			
Dec 4 06:30 London Time	*ILO Mainland Unemployment Rate, 3Q* *Mainland Unemployment Change, 3Q*	Forecast: 9.9% Forecast: 35K	Prior: 9.7% Prior: 10K
	We expect a noticeable increase in mainland unemployment in the third quarter, looking for a 35K uptick that would represent the largest increase since 1Q 2014. If accurate, this forecast would likely push the headline jobless rate to a four-quarter high of 9.9%. With GDP having flat-lined in the first half of 2014, and with limited prospects of much acceleration in the coming few quarters, we estimate that the jobless rate will likely peak at 10% in the next four quarters before embarking on a very gentle downward trend in 2016 provided that GDP growth accelerates in the second half of 2015 and the government pushes through additional labour market reforms.		
Italy			
Dec 1 09:00 London Time	*GDP, 3Q Final*	Forecast; -0.1% QQ, -0.4% YY	Prior: -0.2% QQ, -0.3% YY
	We expect final 3Q real GDP to be confirmed at -0.1% QQ (-0.4% YY), bringing the Italian economy back into recession territory. The GDP split is likely to confirm that the economic contraction continues to be driven by weakness in private investment, amid tight financial conditions and poor confidence levels. In addition, we expect private consumption QQ growth to have remained overall flat in 3Q (after 0.2% QQ in 2Q). Weaker growth in Italy's main EA trade partners has also likely implied some slowdown in exports growth in 3Q (after 1.1% QQ in 2Q).		
Spain			
Dec 2 08:00 London Time	*Registered Unemployment, Nov*	Forecast: -3K MM	Prior: +79K MM
	We expect the number of jobless claimants to fall marginally in November (by 3K MM), after rises of 79.2K and 19.7K in October and September, respectively, mainly affected by seasonal factors. The seasonally-adjusted series is likely to continue to show ongoing improvement in registered unemployment (we estimate falling by -0.4% MM in November in SA terms), as observed since August 2013. While the improvements in the labour market have been quite sizeable in the past year, the drop in jobless claimants is probably overestimating the gains (compared, for example, with the labour force survey), due to fewer unemployed being able to access unemployment benefits.		
Dec 5 08:00 London Time	*Industrial Production, Oct*	Forecast: 2.5% YY	Prior: 1.1% YY
	Still buoyant survey data (manufacturing PMI stood at 52.6 in Oct, 0.5 sd above its long-term average) suggest industrial production continued to expand in October – we project by 0.3% MM after rising by 0.5% MM in Sept and 0.1% MM in August. We expect this will translate into a YY figure (WDA) in October of +2.5% (vs. +1.1% in August).		

Sources: National statistical offices, national central banks, Bloomberg, and Citi Research forecasts.

Figure 16. Economic Indicators – Comments: Sweden, Norway and UK

Sweden			
Dec 1 07:30	*Manufacturing PMI, Nov*	Forecast: 51.8	Prior: 52.1
London Time	The Manufacturing PMI slipped 1.3 points to 52.1 in October, and continues to stand below its long-term average of 54.4 for a third consecutive month, signalling a weak recovery for the industry. For comparison, NIER manufacturing sentiment rose surprisingly in October to the strongest level since mid-2011 (assessment of both output and orders was markedly stronger). In line with the decrease in the German and euro area PMIs, we expect the Swedish PMI to decline slightly in November. The trend in hard data remains weak compared to sentiment indicators; industrial production slipped by 0.2% QQ in 1Q-14, by 0.9% in 2Q-14 and by 1.9% QQ in 3Q.		
Dec 3 07:30	*Services PMI, Nov*	Forecast: 57.4	Prior: 57.7
London Time	The Service Sector PMI gained 1.1 points to 57.7 in October, indicating healthy momentum in the sector. The series, though, is very volatile and one gets a more precise picture by looking at three-month moving averages. On this basis, the Services PMI stood at 55.8 in August-October, marginally down from 56.6 in 3Q. Service sector sentiment, according to NIER, increased in October and is now back above the historical average (101.6 in October). The ongoing healthy momentum in the service sector PMI is reflected in actual data, although the third quarter started on a weak note.		
Dec 5 08:30	*Industrial Production, Oct*	Forecast: 0.5% MM	Prior: -1.1% MM
London Time	Manufacturing production data has been extremely volatile in recent months with increase in one month followed by a decrease the next month. On balance, average production in 3Q was 1.9% below the 2Q average, and compares with a 0.2% QQ drop in 1Q-14 and a 0.9% QQ decrease in 2Q-14. In other words, the trend in manufacturing production remains weak and we lack signs of recovery. The downtrend in production, meanwhile, contrasts with developments in sentiment indicators, which signal at least a very moderate recovery. Following weak readings in previous months, we expect industrial production to rebound in October.		
Dec 5 08:30	*Services Production, Oct*	Forecast: 0.2% MM	Prior: 0.8% MM
London Time	Services production was up by a stronger-than-expected 0.8% M/M in September and activity in the previous month was also revised higher. In turn, this implied a slight improvement in the trend; output was up by 0.6% in 3Q and compares with a 0.2% QQ gain in 2Q (+1.8% QQ in 1Q). In YY terms, output growth picked up pace, from 2.3% in August to 4.3% in September, marking a 15th consecutive annual gain. In other words, developments in service production are more encouraging than those within industry, but still not impressive. This is well in line with indications from recent tendency surveys.		
Norway			
Dec 1 08:00	*Manufacturing PMI, Nov*	Forecast: 50.3	Prior: 50.7
London Time	In line with the developments seen in German and euro area manufacturing PMIs, we expect the Norwegian PMI to fall back a tad in November. We note, though, that the PMI tends to be very volatile, and is not closely watched by Norges Bank as there often are problems with the seasonal adjustment procedure (especially around holidays). The PMI also covers a very small sample compared to e.g. Norges Bank's own Regional Network Report (RNR) and the quarterly Business Tendency Survey (BTS), and has little value in predicting actual production.		
Dec 1 09:00	*Credit Growth Indicator C2, Oct*	Forecast: 5.3% YY	Prior: 5.3% YY
London Time	The latest lending survey showed that household credit demand decreased somewhat in 3Q, which was a bit of surprise given that several large banks have lowered mortgage rates since the 2Q survey. This has only to a very little degree been reflected in the monthly credit growth indicator for households (fell 0.1pp to 6.6% YY in 3Q). With positive house price growth in the past five months, a large downward correction on the housing market has become more remote, suggesting that household credit demands could pick up at some point. The latest lending survey also showed slower credit demand from non-financial enterprises, in line with the monthly development in corporate credit growth, which moderated further in 3Q from 2.9% YY in 2Q to 2.5% YY.		
Dec 5 09:00	*Manufacturing Production, Oct*	Forecast: 0.4% MM	Prior: -2.1% MM
London Time	Momentum in manufacturing production has been rather steady, so far, this year; in 3Q, production gained 1.1% QQ, with growth being driven by high activity in July and August among producers who deliver to the petroleum sector. This compares with a 1.2% QQ gain in 1Q and a 1.3% QQ increase in 2Q. Meanwhile, further moderation is looming in the very near term, as also suggested by the 3Q Business Tendency Survey from Statistics Norway; the overall sentiment indicator slipped from a net balance of 6.8 in 2Q to 1.5 in 3Q – the lowest level since 2Q-12 and slightly below the long-term average. However, following a very weak reading in September, we expect to see a slight rebound in October.		
United Kingdom			
Dec 1 09:30	*Manufacturing PMI, Nov*	Forecast: 52.5	Prior: 53.2
London Time	This index rebounded quite sharply in October (rising by 1.7 points) after declines in the prior three months. We look for a slightly softer figure this month, although such a figure would still leave the index a little above its long-run average of 51.2 (over 1991-2013).		
Dec 1 09:30	*Mortgage Approvals, Oct*	Forecast: 63,000 MM, -7.7% YY	Prior: 61,267 MM, -8.7% YY
London Time	The YY change in the number of mortgage approvals for home purchase turned negative in September for the first time since Jan-13, and we expect another negative YY reading this month. Nevertheless, we do not expect to see a major housing slowdown: mortgage rates have fallen recently, job growth is solid, and the GfK survey shows a marked rise in the share of people who believe it is a good time to buy a house.		
Dec 3 09:30	*Services PMI, Nov*	Forecast: 57.0	Prior: 56.2
London Time	The services PMI has weakened in the past two months, but remains at an elevated level that is still consistent with strong growth. We anticipate a slightly higher figure this month and – given that the long-run average is 54.9 – a figure close to our forecast would still imply solid growth.		

Sources: National statistical offices, national central banks, Bloomberg, and Citi Research forecasts

Figure 17. Key Economic Indicators (8 December – 12 December)

Monday 8 December		Forecast	Last
07:00	Germany: Industrial Production, Oct		
07:30	France: Bank of France Business Sentiment, Nov		
08:15	Switzerland: Consumer Prices, Nov		
08:15	Switzerland: Retail Sales, Oct		
09:30	Euro Area: Sentix Investor Sentiment, Dec		
09:30	UK: Industrial Production, Oct		
	Manufacturing Output, Oct		
	Euro Area: Extraordinary Eurogroup Meeting, Brussels		
Tuesday 9 December		**Forecast**	**Last**
06:45	Switzerland: Unemployment, Nov		
07:0	Germany: Labour Cost Index, 3Q		
07:00	Germany: Trade Balance, Oct		
07:45	France: Trade Balance, Oct		
07:45	France: Budget Balance, Oct		
09:30	UK: Industrial Production, Oct		
	Manufacturing Output, Oct		
10:00	Greece: Consumer Prices, Nov		
10:00	Malta: GDP, 3Q		
	EU: EcoFin Meeting, Brussels		
Wednesday 10 December		**Forecast**	**Last**
07:45	France: Industrial Production, Oct		
07:45	France: Non-Farm Payrolls, 3Q		
08:30	Netherlands: Industrial Production, Oct		
09:00	Norway: Consumer Prices, Nov		
09:30	UK: Trade Balance – Goods & Services, Oct		
10:00	Greece: Industrial Production, Oct		
Thursday 11 December		**Forecast**	**Last**
00:01	UK: RICS House Price Survey, Nov		
07:00	Germany: Consumer Prices, Nov Final		
07:45	France: Consumer Prices, Nov		
08:30	Sweden: Consumer Prices, Nov		
08:30	Sweden: Unemployment Rate, Nov		
08:30	Switzerland: Swiss National Bank Monetary Policy Assessment		
09:00	Norway: Norges Bank Interest Rate Decision and Monetary Policy Report		
09:00	Italy: Industrial Production, Oct		
09:00	Euro Area: ECB Monthly Bulletin		
10:00	Greece: Unemployment Rate, Sep		
Friday 12 December		**Forecast**	**Last**
07:00	Sweden: PES Unemployment Rate, Nov		
07:45	France: Current Account, Oct		
08:00	Spain: HICP, Nov Final		
08:30	Netherlands: Trade Balance, Oct		
09:00	Italy: Consumer Prices, Nov Final		
09:30	UK: Construction Output, Oct		
10:00	Euro Area: Industrial Production, Oct		
10:00	Euro Area: Employment (National Accounts), 3Q		

Sources: National statistical offices, central banks and Citi Research

Figure 18. Recent Research from the European Economics Team

Euro Area - Sovereign Debt Update		
EC to Deliver 2015 Budget Assessments	European Economics Team	Nov 28, 2014
EC's Juncker Unveils EU Investment Plan	European Economics Team	Nov 27, 2014
ECB's Linde: December Data Key for Further Stimulus	European Economics Team	Nov 26, 2014
ECB Manages Expectations Ahead of Dec 4 Meeting	European Economics Team	Nov 25, 2014
ECB's Constancio: Measures To Be Reviewed In Q1	European Economics Team	Nov 24, 2014
Euro Area		
Euro Area - ECB's Constancio on QE and EU's Juncker on Investment Plan	Guillaume Menuet	Nov 26, 2014
Euro Area - Dovish Draghi stresses need for aggressive B/S expansion	Guillaume Menuet	Nov 21, 2014
Euro Area - Draghi Reinforces Balance Sheet Targeting, More Easing Ahead	Guillaume Menuet	Nov 6, 2014
Euro Area - EC forecasts points to non-compliance for some 2015 budgets	Guillaume Menuet	Nov 4, 2014
Global Economic Forecasts - October 2014	Michael Saunders	Oct 31, 2014
Euro Area - Will the ECB do a BoJ? Unlikely at the Nov meeting, in our view	Guillaume Menuet	Oct 31, 2014
European Economic Forecast Highlights, October 2014	Ann O'Kelly	Oct 30, 2014
Euro Area - Comprehensive Assessment Ends With A Whimper	Ebrahim Rahbari	Oct 26, 2014
Spain - Catalonia Referendum: Will it Happen? If So, What?	Antonio Montilla	Oct 10, 2014
ECB - ECB: 'Let's See' First, But Leaves Door Open To QE	Ebrahim Rahbari	Oct 2, 2014
Euro Area - ECB Preview: Will all be revealed on Oct 2?	Guillaume Menuet	Sep 25, 2014
Italy - Growth and Inflation keep undershooting expectations	Giada Giani	Sep 25, 2014
Euro Area - ECB Cuts Rates and Announces Asset Purchase Programme	Guillaume Menuet	Sep 4, 2014
Euro Area - Euro Area: What Are The Prospects For Fiscal Easing?	Ebrahim Rahbari	Sep 3, 2014
Euro Economics Weekly		
Spain: Improving Economy, Politics The Main Risk	Antonio Montilla	Nov 21, 2014
Will Germany Let the ECB Do QE?	Ebrahim Rahbari	Nov 14, 2014
Door Open to QE, Favouring January over December	Guillaume Menuet	Nov 7, 2014
Credit And The Eurozone Malaise	Ebrahim Rahbari	Oct 31, 2014
Will the Euro Area Suffer from Oil Blues?	Guillaume Menuet	Oct 24, 2014
How Much Will the Weaker Euro Boost Eurozone Growth?	Ebrahim Rahbari	Oct 17, 2014
France: Rejecting Austerity, For Now	Guillaume Menuet	Oct 10, 2014
Greece — Six Crucial Months Ahead	Giada Giani	Oct 3, 2014
Focus On The ECB's Balance Sheet	Ebrahim Rahbari	Sep 26, 2014
H2 GDP Uptick Too Small to Stop ECB QE	Guillaume Menuet	Sep 19, 2014
Euro Area: Housing Sector Close to a Turnaround	Antonio Montilla	Sep 12, 2014
Low-flation Is Here To Stay	Giada Giani	Sep 5, 2014
Is the Period of German Outperformance Over?	Ebrahim Rahbari	Aug 29, 2014
ECB QE: Why, When and How?	Guillaume Menuet	Aug 22, 2014
What's Behind the Periphery Growth Outperformance?	Giada Giani	Aug 15, 2014
How Might Russia Developments Affect The Eurozone Economy?	Ebrahim Rahbari	Aug 1, 2014
France: More Reforms to Jump Start Confidence?	Guillaume Menuet	Jul 25, 2014
Public Debt Sustainability: Has It Really Been Restored?	Giada Giani	Jul 18, 2014
Why Banking Union Matters: Then and Now	Ebrahim Rahbari	Jul 11, 2014
Is The Euro Area Recovery at Risk of Faltering?	Guillaume Menuet	Jul 4, 2014
Weak Pay Trends Imply Further Inflation Undershoot	Giada Giani	Jun 27, 2014
A Great Rotation towards Eurozone Portfolio Assets?	Ebrahim Rahbari	Jun 20, 2014
Labour Market Slack	Giada Giani	Jun 13, 2014
Chief Economist Publications		
Global Economic Outlook and Strategy — October 2014	Willem Buiter	Oct 29, 2014
Scandi and Swiss		
Scandi Economics Update	Tina Mortensen	Nov 28, 2014
Sweden - Moderate GDP Growth in 3Q	Tina Mortensen	Nov 28, 2014
Norway - 3Q Mainland GDP Growth Beats Expectations	Tina Mortensen	Nov 20, 2014
UK		
UK - GDP Details	Michael Saunders	Nov 26, 2014
UK - YouGov Reports Further Drop in Inflation Expectations;	Michael Saunders	Nov 25, 2014
UK - Fiscal Data Suggest Sizeable Deficit Overshoot Likely	Michael Saunders	Nov 21, 2014
UK - Minutes And ASHE Data	Michael Saunders	Nov 19, 2014
UK - Corporate Profitability Highest Since the Late 1990s	Michael Saunders	Nov 14, 2014
UK - BoE Inflation Report — First Impressions;	Michael Saunders	Nov 12, 2014
UK - Labour Market Data;	Michael Saunders	Nov 12, 2014
UK Economics Weekly		
How Likely is Brexit? What Would the Effects Be?	Michael Saunders	Nov 21, 2014
Golden Scenario	Michael Saunders	Nov 14, 2014
The UK's Achilles Heel	Michael Saunders	Nov 7, 2014
"Low for Longer" ≠ "Low Forever"	Michael Saunders	Oct 31, 2014

Will “Low-flation” Persist?	Michael Saunders	Oct 17, 2014
Persistent Political Uncertainties Likely	Michael Saunders	Oct 10, 2014

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

NON-US RESEARCH ANALYST DISCLOSURES
Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd	Guillaume Menuet; Ebrahim Rahbari; Michael Saunders; Antonio Montilla; Ann O'Kelly

OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Bell Potter Customers: Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.