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Developed Markets
Western Europe

Euro Area

The ECB And QE: "Whatever it Takes", Redux

- **QE is probably coming to the euro area** — The ECB has opened the door to QE, with a unanimous commitment to using unconventional instruments if necessary to cope with low inflation for a prolonged period of time. We believe that the chances of unsterilised large-scale asset purchases (LSAPs) of public and private assets being launched this year have therefore increased to more than 50:50.

- **Balance sheet expansion and other measures** — The strategy of expanding its balance sheets should help the ECB achieve a number of objectives, some direct (expand the narrow and broad monetary bases, reduce yields) and other indirect (lower the exchange rate, reduce credit spreads and support a rebound in private sector lending). We believe other measures such as ending the sterilisation of the €172.5bn SMP and conditional fixed-rate LTRO are likely to be part of the policy response.

- **Rate cuts will likely come first** — We believe that the ECB will use standard and non-standard measures first in June to coincide with a fresh round of downward revisions to staff inflation forecasts. QE, if it happens, will likely come in September or December 2014, as the ECB will probably retain hope that some easing in June will result in a weaker euro and support the recovery helping push up inflation.

- **Mixing it up** — We expect QE to be spread across private and public assets, but that the latter will represent the larger share of purchases, as they account of 53% of eligible market assets. But it would be logical for the ECB to supplement the programme with private sector assets, focusing again on bank bonds (covered 11% and uncovered 16%), other marketable assets or direct claims (8%), and ABS (6%).

- **Size matters** — We argue that QE will need to be large to make much difference to the inflation outlook. Purchases of €1,000bn would be the bare minimum, in our view, to lift inflation rates towards the ECB's 'below by close to 2% target', based on ECB estimates that LSAPs on this scale could add around 0.5% to inflation.

- **Will it work?** — Only time will tell, as effects are likely to be limited in the near term (unless the euro were to depreciate sharply), especially if the fiscal stance stays mildly contractionary and the availability of credit remains a problem, particularly for SMEs, but more generally for the euro area periphery. Hence, we remain doubtful that the often-mentioned initial €1tn of asset purchases (86% of monetary base, 46.5% of Eurosystem's balance sheet, 10.4% of euro area GDP) will be enough to transform the economic outlook meaningfully. Yet, there is always the possibility of the ECB expanding the LSAP programme over time if necessary.

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QE: Why? What? How Much?

Large output gap, low inflation, strong euro: the ECB's forward guidance points to lower rates

The modest pace of economic activity in the euro area means that the output gap is narrowing very slowly, requiring the ECB to maintain a very accommodative monetary policy stance. Given the risks associated with a long period of low inflation and plenty of spare capacity, the ECB has been reiterating, and adding to, its forward guidance which stipulates that "*the Governing Council (GC) expects the key interest rates to remain at present or lower levels for an extended period of time*". Pressure has been mounting for the ECB to deliver more stimulus, given the very low level of headline inflation: the HICP has been below 1% YY in each of the last six months, averaging 0.7% since October 2013. We continue to see significant risk that the realised inflation path will undershoot the ECB's medium- to longer-term trajectory, and we continue to forecast euro area inflation to average 0.7% YY in 2014 and 2015, with a slight pick-up to 1.1% in 2016. In our view, this profile would require the ECB to loosen policy further, but so far, the ECB has expressed confidence that inflation will eventually return to target. We believe that the ECB will use standard and non-standard measures first at its June meeting, hoping that the recovery pushes headline inflation gradually higher. But we expect that the GC will likely have to buy insurance against an even more prolonged period of low inflation by launching a QE programme later in the second half of 2014. While there are many things that central banks can do to stimulate the economy we think that the ECB will for now only experiment with adding private assets to its purchase list.

The ECB disappoints in March and changes tack in April

A rate cut in June remains our base case amid larger downside risks to inflation

Our long-held view that the ECB would eventually be pushed into lowering its main refinancing rate was dealt a blow in March. The ECB did nothing despite producing a 2016 mid-point inflation forecast of 1.5% YY (and a 1.7% YY 4Q-16 estimate), a level significantly lower than its 'below but close to 2%' target. We argued then that it was just a matter of time before the ECB would likely be forced to act, standing by our base case of a negative deposit rate by June. The effective exchange rate has increased by 0.8% since the mid-February cut-off point for March's macroeconomic projections and the inflation trajectory is probably lower already. As a result, it seems very likely to us that the GC will decide to cut rates at the 5 June meeting, but possibly as early as 8 May.

The ECB discussed unconventional instruments and is unanimous about using them if needed

The ECB's communication strategy has shifted noticeably in the last few weeks, none more so than at the April meeting when the GC added a full sentence to the introductory statement stressing that it was "*unanimous in its commitment to using also unconventional instruments within its mandate in order to cope effectively with risks of a too prolonged period of low inflation*". President Draghi noted in the Q&A that the GC had had "*a rich and ample*" debate about QE, and hinted that the discussion would continue in coming weeks, focusing on determining which options between public and private purchases would be the most effective.

We think that the ECB should do QE, but believe that it might not cross the Rubicon until much later in 2014

We think that this was the first time since 2008 that such a discussion had taken place at the GC level, illustrating a greater degree of preparedness to act. But many details still need to be agreed, including the likely trigger points for QE, its size and composition, suggesting that this policy option will be mulled over for a while longer before any action is taken. The ECB should be more adventurous with its monetary policy strategy in our view, and buy some insurance against the growing likelihood of headline inflation staying low for a longer period than it currently envisages. However, we believe that the GC has not yet made up its mind and that there are still obstacles to launching a QE programme in the very near term.

Talking the currency down and acknowledging weak inflation

QE remains to date a theoretical concept

The GC is becoming increasingly uncomfortable with the level of the euro that is imparting a downward bias to the inflation trajectory. The current communication strategy seems to be designed to '*talk the currency down'* by being very explicit about the list of instruments at the ECB's disposal. However, rather than suggest that targeted asset purchases are imminent, we believe that the GC wants to send a strong signal to investors that nothing is excluded. Executive Board Member Yves Mersch noted that the purpose of the announcement made by the GC at the April meeting was to show that "*we are ready to prepare for such a fat tail event*", stressing that "*quantitative easing is a theoretical concept*" and that "*there is a long way to go to any practical steps*", arguing that there is also "*conventional room to ease policy*". Mr. Mersch stressed that "*inflation risks and deflation risks are more or less level in the euro area, which means we don't see an imminent risk of deflation*".

Talk is cheap

Talking about QE is not the same as launching a programme of asset purchases. But the fact that the GC is discussing QE after working groups reviewed scenarios probably puts the ECB in a position to act quickly if needed. Yet, we sense that this remains a theoretical discussion at this stage, given the upward sloping trajectory for headline inflation in the medium term, and the apparent gap between the ECB's 1.7% YY 4Q-16 inflation estimate and the explicit 1% inflation threshold identified by a number of GC members (including VP Vitor Constancio) remains a problem.

We don't think that the ECB will seriously consider launching QE until September

If by contrast, the inflation trajectory stays low in the second half, the lending situation does not improve noticeably, the euro does not weaken much and the high unemployment rate continues to exert downward pressure on wages, we think that the ECB will launch a QE programme. It will also likely have to big deep into its toolbox beforehand to ensure that inflation expectations remain anchored.

What would be the ECB's QE objectives?

Direct and indirect QE objectives

Launching a programme of asset purchases would increase the ECB's balance sheet and should help the ECB achieve a number of objectives, some direct, other indirect. The direct objectives would be to expand the narrow and broad monetary bases, hoping that yields fall and give investors a form of subsidy by buying assets at above their market value. The indirect objectives would be the lower the exchange rate[1] and reduce credit spreads in non-government assets as the risk-free rate falls and support a rebound in private sector lending. We anticipate an added layer of complexity related to the fact that unlike the BoE and the Fed, where the ultimate aim of QE was to go round the banks, the ECB intends to get involved with them.

Going through the banks seems to be a necessity, but probably requires greater transparency of what is on banks' balance sheets

Indeed, a number of GC members have expressed a preference for purchasing private sector assets (see Figure 1). Many of those would be sitting on banks' balance sheets, but it is doubtful that the ECB would necessarily want to pay too high a price for these assets, or carry a significant degree of credit risk. Some clarity could come from the results of the comprehensive assessment of the euro area banking system, enabling the supervisor to target purchases in a more effective way. This would argue for the ECB to wait a little longer, in order to see whether improvement in the supply side of the lending equation needs to be supported or whether some progress is happening independently.

[1] The ECB estimates that a 3% fall in nominal effective terms would add between 0.1-0.2 percentage points to HICP

Figure 1. Summary of recent statements about QE from various GC Members

Generalised asset purchases	ECB Vice President Vitor Constancio indicated on CBNC on Friday 4 April that "*generalised asset purchases*" would imply buying paper in all countries, and would amount to a "*pure monetary policy thing*". Mr. Constancio stressed that the Governing Council (GC) "*had not discussed whether the ECB would buy government bonds or private assets*" under a QE programme "*because that was not the environment to do it*". Mr. Constancio explained that the main achievement of the April meeting had been to build unanimity that asset purchases could be considered "*if levels of inflation below 1% continue*", adding that the June staff economic projections would be key to determining whether the medium-term profile remained consistent with inflation returning to target.
Necessarily different from that undertaken in the US	ECB Executive Board Member Benoit Coeuré gave an interview to conservative newspaper Le Figaro noting that the GC does not believe that QE is necessary today as it anticipates that the low level of inflation is partly explained by temporary factors and the recovery is materialising. He also noted that any QE would be "*necessarily different*" from that undertaken in the US. ECB Vice-President Vitor Constancio repeated that the "*ECB had not taken any decision on the issue*", but remarked that "*private assets will be included in any decision that may be taken*", adding that "*it would make a slight difference with other policies in other central banks*". Mr. Constancio added that "*we are looking into what assets would be easier to operate if indeed we take such action*".
ABS Securities	ECB Executive Board Member Yves Mersch called on the EU to move ahead swiftly in addressing inconsistencies in the treatment of high quality securitisation to push for adequate reflection of loan securitisation risks in banks' capital requirements, indicating that since the start of the 2007/08 financial crisis, defaults in European ABS had ranged between 0.6% and 1.5% on average, versus 9.3%-18.4% in the US. Austrian central bank governor Ewald Nowotny repeated on a number of occasions in April that as a non-standard measure, he would favour "*strengthening the ABS market in Europe*", stressing that while this would not mean other steps are ruled out, "*my personal emphasis would lie in this area*".
Mixing things up	ECB Governing Council member Josef Bonnici indicated in an interview that the ECB could be forced to act if the euro continues to strengthen and may use a variety of instruments to do so, including quantitative easing, but acknowledged that the ECB must reflect on how QE policy in the eurozone would work, retaining some flexibility to mix sovereign and private asset purchases in any QE programme.
Signalling willingness to act is key	ECB Chief Economist Peter Praet remarked that "*what is important to consider today is the signal that the ECB Governing Council has given with unanimity: to use all measures if the risk of too prolonged low inflation would materialise*". Turning to the sequencing of instruments, Mr. Praet noted that "*it would depend on the situation you face*".
Delineating the contours of QE	Executive Board member Benoit Coeuré reiterated in a speech delivered at an IMF conference that "*further monetary easing is not excluded, but remains contingent on outcomes*", adding that "*if such easing is called for the Governing Council is unanimous in its commitment to use also unconventional instruments within its mandate*". Turning to asset purchases, Mr. Coeuré noted that "*asset purchases are an instrument that we are ready to use if we deem necessary*". Mr. Coeuré also outlined the contour of any asset purchase programme, indicating that "*purchases would naturally be linked to the interest rate maturities that are most important for firms' and households' investment and consumption decisions*," adding that "*in the euro area, this tends to be the intermediate to longer part of the yield curve*". Finally Mr. Coeuré highlighted that the "*yardstick for success of any targeted asset purchases would not be the size of our balance sheet, but the direct observable effect of our operations on term premia across markets and jurisdictions, or put differently, would not be about quantity but price*".

Sources: Reuters, Bloomberg, ECB and Citi Research

How much to buy?

€1,000bn over 12 months is what working groups have been tasked of modelling

A Frankfurter Allgemeine Zeitung article noted that the ECB had run multiple models on a potential QE programme of €80bn for 12 months to estimate its impact on inflation. However, the official quoted in the article indicated that there was no pre-agreement on any QE action or its size, with suggestions that officials are leaning toward implementing a credit-enhancing programme. The weakest scenario had shown an impact of 0.2 percentage points (ppt) on the headline inflation rate and the strongest scenario a larger 0.8ppt. A spokesman for the ECB noted that *"the relevant committees of the Eurosystem will continue their reflections on the various scenarios that will be made*".

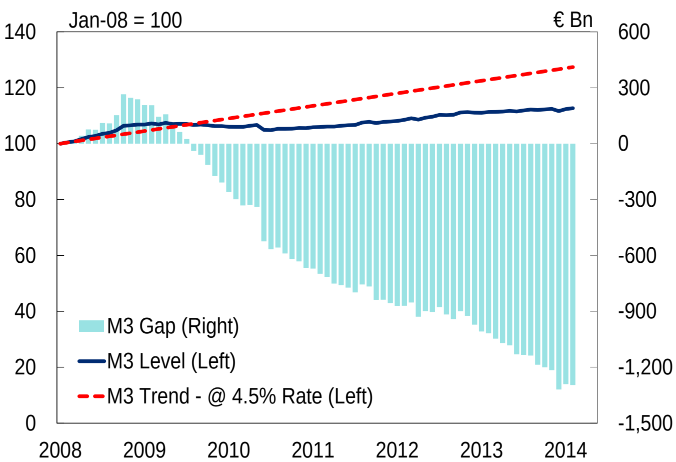
But greater clarity would likely be required about the various options before a decision to act is taken

Buying €1,000bn of euro area assets is unlikely to be sanctioned by the ECB in our view unless it acknowledges more clearly that downside risks have materialised and are challenging the medium-to-longer term inflation profile. We think that if QE was to be initiated, and include a sizeable share of private sector assets, it would probably be after the ECB has assumed supervision of the largest euro area banks. This would enable the ECB to see the results of the stress tests, and obtain a fuller picture of what could be the most effective securities purchases to put the banking system in a better position to extend new loans at a rate that would make it attractive for borrowers.

Two different methods suggest that the ECB's balance sheet should increase by around €1,200bn to deliver the required amount of stimulus

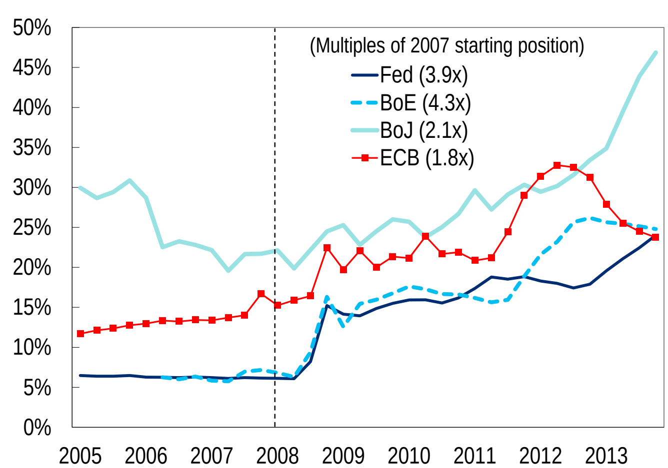
We believe €1,000bn to be a plausible benchmark for QE. Our analysis suggests that the gap between the level of M3 and the implied 4.5% trend growth rate of M3 that the ECB used in the past in its analysis of the second pillar currently amounts to €1,200bn (See Figure 2). From another angle, if we look at the relative increase in central bank's balance sheets since the start of the financial crisis in 2Q 2008, we find that the Fed's balance sheet has increased by 21.4ppt of nominal GDP in 4Q-13, while a similar calculation for the BoE shows a 21.2ppt increase. This contrasts significantly with the modest 8.8ppt gain in the ECB's balance sheet to date. If we were to assume that the ECB's balance sheet would have to expand by the same average proportion as the Fed's or the BoE's, the gap would be €1,150bn (see Figure 3). Note also that banks and financial institutions bid for €1,020bn of 3-year LTROs between late-2011 and early-2012 and that the Eurosystem monetary base was €1,162bn as of March 2014. Hence, it seems that €1,000bn is the minimum amount that the ECB should consider. The total size of QE could be larger, in our view, being theoretically limited only by the total stock of financial instruments outstanding, as the ECB can buy almost anything it desires.

Figure 2. Euro Area — M3 Money Supply Gap vs. 4.5% Trend, € Billions, 1Q-2008 to 1Q-2014



Sources: European Central Bank and Citi Research

Figure 3. Selected Countries — Central Bank Balance Sheet, Pct of Nominal GDP, 1Q-2005 to 4Q-2013



Sources: Haver and Citi Research

How effective has QE been elsewhere?

In more disintermediated economies, such as the UK, it seems that QE has been a little more effective

In its quarterly bulletin dated August 2011, the BoE estimated that £200bn of QE had raised inflation between 0.75% and 1.5%, with a slightly greater effect on real GDP. Hence, the standard rule of thumb is that each £100bn of QE (6.5% of annual nominal GDP) was similar to a 100bp cut in Bank Rate, lifting inflation by 0.5% after two years. Its effect on the economy could be seen through the money supply/gilt yield channel, with no impact on the monetary base (i.e. reserves) channel. Note that the UK experience was that QE had been less powerful than believed initially in 2009, probably due to the fact that its effectiveness is lower when financial markets are functioning normally.

High degree of intermediation, less stressed market conditions and external seepage could explain the difference

The ECB's QE simulations suggest that €1,000bn of asset purchases (around 10.6% of annual nominal GDP) would add between 0.2-0.8% to inflation, comparatively less than the 0.6-1.2% that would be implied by the BoE's programme, perhaps explained by factors such as:

1. The high degree of intermediation could be a hurdle limiting the pass-through of lower government bond yields, suggesting that the ECB ought to focus more on private sector assets;

2. The much improved liquidity situation means that it is likely to be harder to influence the price of already 'expensive securities', and thereby reduce the extent of spread compression in the periphery;

3. The more open Eurozone relative to the US (and to a lesser extent the UK) could mean that a greater proportion of the adjustment goes through the exchange rate rather than government bond yields.

What to buy? What form would QE take?

The ECB will likely aim to improve monetary policy transmission but will try to avoid credit risk

One of the key issues with QE is for a central bank to identify the right assets where the term premium can be lowered effectively without imparting too much credit risk for its balance sheet. Buying cheap assets would also make sense, but these are likely to be few and far between; this applies not only to the risk-free rate in euro area core sovereign debt, but also with respect to the relatively large periphery debt markets of Italy and Spain. If the ECB wishes to improve the transmission mechanism of monetary policy, it would be logical to purchase public debt and supplement it with private sector assets, focusing again on bank bonds (covered and uncovered, direct claims (other marketable assets) and ABS (see Figure 4).

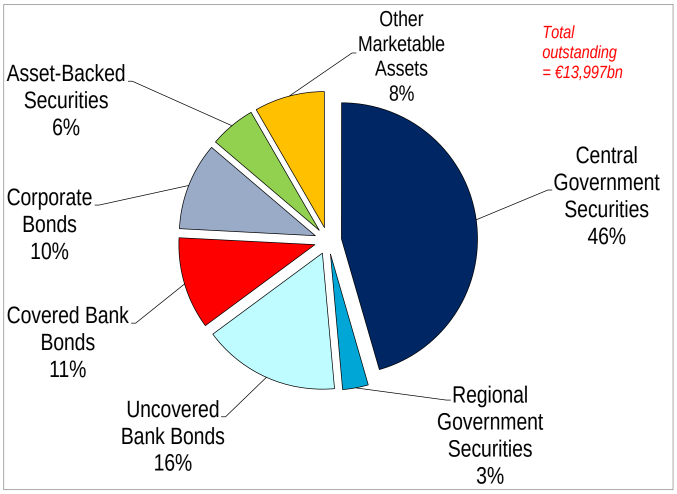
Private sector assets might be cheaper to buy and could be easier to justify

We see two main reasons to target private sector assets: i) it may be more effective, and ii) the legal and political economy hurdles might be much lower. Conversely, the size of the market tends to be limited, the assets lack homogeneity and there is typically a higher level of credit risk. The breakdown of eligible market assets (see Figure 4) shows that the pool of private sector assets is large, amounting to 53%, versus 47% for public sector debt (central and regional government securities).

Buying assets for monetary policy purposes would likely require replicating the euro area member states' capital key

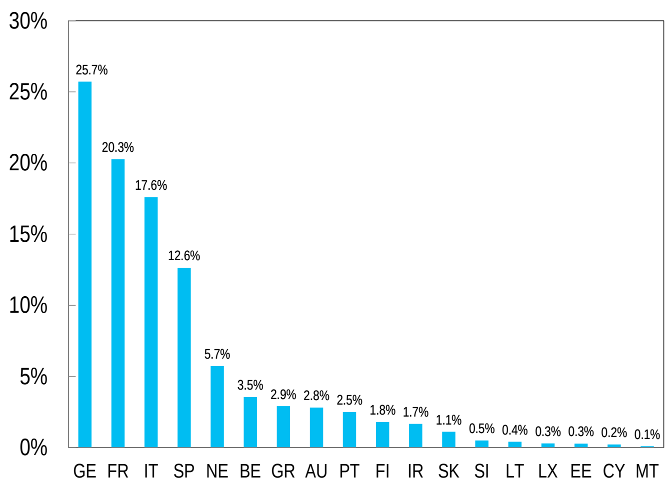
As to how the ECB would break down its purchases by countries, the most likely choice would be replicate countries' ECB capital subscription. Germany would account for 25.7%, France 20.3%, Italy 17.6%, Spain 12.6%, the Netherlands 5.7%, Belgium 3.5%, Greece 2.9%, Austria 2.8% and Portugal 2.5% (see Figure 5). The other nine member states in aggregate represent 6.3%.

Figure 4. Eurosystem – Eligible Market Assets, € Billions, 4Q-2013



Sources: European Central Bank and Citi Research

Figure 5. ECB – Euro Area Member State's Capital Subscription, Jan-14



Sources: European Central Bank and Citi Research

Collateral breakdown suggests that a significant proportion of ABS bonds are already used for refinancing operations

We estimate that if private sector assets are purchased, it is likely that the ECB will target ABS, even if a sizeable share (43%) of the existing stock of eligible ABS collateral is already pledged to the ECB for liquidity purposes. Some of these should be mortgage-backed securities (residential as well as commercial), others will likely be based on SME loans and others on auto loans, credit cards, loans (consumer and student, etc.). Taking these assets off banks' balance sheets could help with the deleveraging process, while injecting more liquidity in the system and reduce some of the opacity surrounding the state of some banks' balance sheets.

Collateral breakdown suggests that a significant proportion of ABS bonds are already used for refinancing operations

If the ECB wants to focus on credit easing, buying asset-backed securities (ABS) of SME loans could make sense, particularly countries such as Greece, Italy, Spain and Portugal where these represent a significant amount of GDP (see Figures 6 and 7). Given the relatively larger share of SME financing via the banking system in the periphery (Euro Economics Weekly - Recovery Watch: SME Lending is Key), it would be logical for the ECB to zero in on this segment and on other marketable assets rather than purchase corporate bonds.

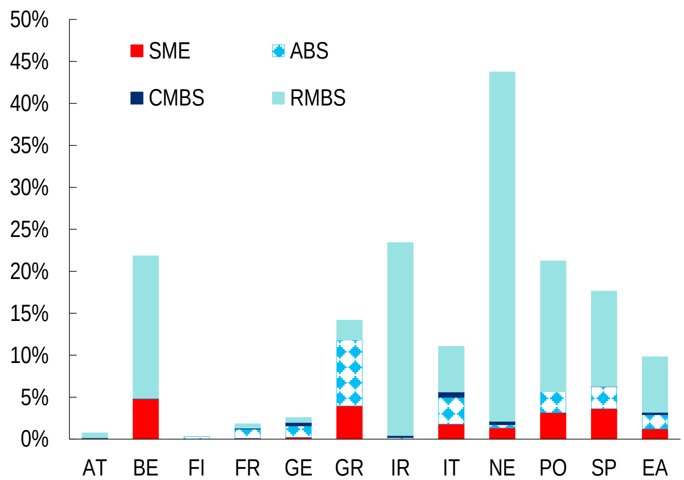
Figure 6. Euro Area — Structured Finance, Balances Outstanding by Country and Collateral, € Billions, 4Q-2013

	ABS	SME	CMBS	RMBS	Total	Nominal GDP
AT	0.3		0.2	1.8	2.3	312.8
BE	0.1	17.8	0.2	63.3	81.4	381.3
FI	0.6				0.6	193.4
FR	22.6	1.9	2.0	10.2	36.7	2,061.0
GE	35.8	5.9	10.6	15.3	67.6	2,742.1
GR	14.3	7.2		4.3	25.8	182.1
IR	0.3		0.4	37.6	38.3	164.0
IT	50.5	28.2	10.1	85.6	174.4	1,560.2
NE	2.3	8.0	2.5	249.7	262.5	603.4
PT	4.2	5.3		26.2	35.7	165.7
SP	27.0	37.7	0.4	118.0	183.1	1,023.0
EA-11	158.0	112.0	26.4	612.0	908.4	9,389.0

Notes: ABS (Asset Backed Securities, SME: (Small and Medium-Sized Enterprises), CMBS (Commercial Mortgage Backed Securities), RMBS (Residential Mortgage)

Sources: AFME / ESF Securitisation Data Report and Citi Research

Figure 7. Euro Area — Structured Finance, Balances Outstanding by Country , % of Nominal GDP, 4Q-2013



Sources: AFME / ESF Securitisation Data Report, Eurostat and Citi Research

Direct purchases could be done on the condition that i) distortions are avoided and ii) purchases are tailored to the impact the benchmark for loan pricing

Executive member Benoit Coeuré gave a speech on 13 April in Washington D.C. entitled "Asset purchases as an instrument of monetary policy"[2]. We believe that it laid out the foundations for what is likely to be the ECB's strategy. According to Mr. Coeuré, the main objective will be to target medium-to-longer term securities, aiming to lower the level of the term premium across maturities and market segments. Mr. Coeuré noted that there would be conditions attached, namely that i) there are enough assets in the targeted market to avoid "*unduly distorting market allocation or worse have intended distributive effects*", and ii) the ECB ensures effectiveness by tailoring the targeted purchases depending on the financial structure of the "*jurisdiction*" and on "*which interest rates provide the benchmark for loan pricing*". For "*highly integrated*" financial markets, Mr. Coeuré suggests that purchases of government bonds might be the preferred solution if the term premium can be lowered effectively. But the segmentation in other jurisdictions would likely

[2] http://www.ecb.europa.eu/press/key/date/2014/html/sp140413.en.html

dictate a more tailored approach. For instance, purchases of private sector asset would be considered, but with the caveat of keeping price distortions to a minimum.

There should be enough high-quality assets for the ECB to purchase given that the eligibile collateral amounted to €14 trillion as of 4Q-13

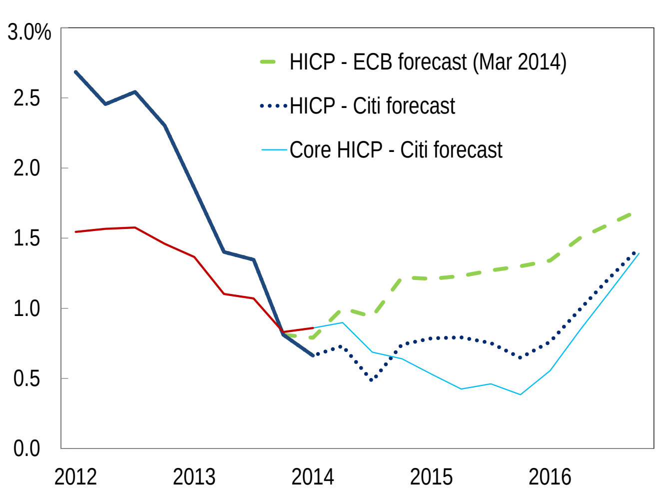
Given the traditional reluctance of the ECB to taking on credit risk, the quality of assets to be purchased would likely remain high (above A-). Moody's statistics suggest that 76% of structured products outstanding have a rating of A- or above, of which 4% are Aaa/AAA rated. In cases where the risk-free rate is not acting as a benchmark for the loan pricing, the ECB would likely target its purchases towards assets such as direct claims, from which a market yield curve could be derived. In the absence of eligible assets in some jurisdictions, we would expect the ECB to broaden the range of purchases to include government bonds.

What could be the inflation threshold for QE?

Low inflation is part of the adjustment…

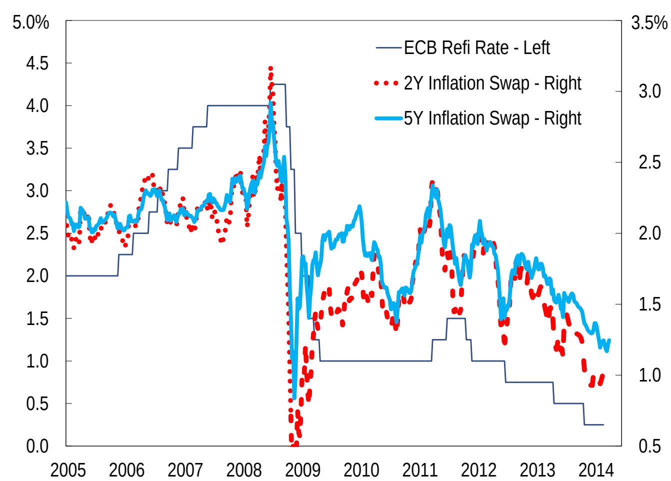
As indicated by many GC members, inflation rates below 1% are uncomfortably low, although some also argue that they are to an extent the consequence of euro area periphery member states adjusting their prices/wages to regain competitiveness. The March 2014 staff macroeconomic projections showed that inflation is forecast to average 0.8% in 1Q-14, 1.0% in 2Q-14, 0.9% in 3Q-14 and 1.2% in 4Q-14, and to be on a modest upward trajectory thereafter, with mid-points of 1.0%, 1.3% and 1.5% for 2014, 2015 and 2016, respectively (see Figure 8). These quarterly point estimates suggest that the ECB was prepared to experience four quarters of inflation below 1% without altering its monetary policy stance. The GC was signalling that it was prepared to look through abnormally low inflation, expressing confidence about an upward sloping medium-term inflation trajectory. The ECB was also forecasting that the rate of inflation excluding energy and food (and changes in indirect taxes) would be the same in 2014 as in 2013, at just 1.1% (1.0%).

Figure 8. Euro Area – Inflation: ECB & Citi Forecasts, Mar-12 to Dec-16



Sources: European Central Bank and Citi Research

Figure 9. Euro Area – ECB Refi Rate and Euro Inflation Swaps, Jan-05 to April-14



Sources: Bloomberg and Citi Research

…but how long is 'close to 1%' too long?

With the final March inflation print confirmed at 0.5% YY, inflation has averaged 0.65% in 1Q-14, an undershooting of 0.15pt of the staff forecasts. Assuming no changes in the key assumptions, this would mean that the ECB's central scenario of a rebound in inflation rates above 1% from 4Q-14 could be jeopardised, with HICP rates not being meaningfully different from 1.0% until 2H-15. This is likely to be unacceptably low for many GC members in our view, as this situation would further aggravate the plight of member states with an elevated debt burden. We think that a modest downward revision to the 2015 and 2016 mid-points to 1.2% and 1.4% in

June will not be enough for the GC to decide to launch QE then. Provided that core inflation in 2Q-14 still matches the ECB's base case, we believe that the GC will cut its key interest rates and bring the deposit rate into negative territory. However, the likelihood of a further downward revision in the HICP profile either in September or December, meaning inflation stays low for longer, will likely prompt QE.

But the window to do more is probably narrowing unless the recovery were to be hit by an adverse supply shock

Our baseline is that business sentiment continues to improve in the next five-to-six months, with some relaxation in financial conditions provided by a weaker euro and lower market rates in the aftermath of a refinancing and deposit rate cuts, together with more liquidity and relaxation of collateral rules. As a result, we believe that the GC will likely wait until September at least, but possibly until December before deciding whether to embark on a full QE programme.

Will it work?

The risk-free rate will likely fall and asset prices rise, but to be successful, the policy likely needs to restart the credit machine

The experience of other central banks suggests that QE can be effective in reducing riskless rates and reflating asset prices (see IMF 2012). However, QE's effects on the economy seem to be quite limited in the near term, especially if (like the UK in 2010/11, US in 2013, Japan now) accompanied by fiscal tightening. The reserve channel appears largely irrelevant when the policy rate is close to zero. The strong recoveries now emerging in the US and UK may have benefited from the cumulative impact of central bank asset purchases, but probably also owed at least as much to measures to improve credit availability, the absence of heavy fiscal drag, relatively low real exchange rates and more flexible supply sides.

Because half-hearted QE is unlikely to succeed in driving inflation back up to target, the GC should be bold

This is not a counsel of despair. Nor does it mean that the ECB will refrain from QE. Rather, it implies that QE will have to be done in large size (perhaps several trillions of euros) for an extended period – with a commitment to do "*whatever it takes*" to lift the inflation forecast close to 2% – if it is to genuinely lift the euro area out of the prospect of prolonged underperformance. The ECB does finally seem to be getting ready for QE. However, while it will likely be on a scale large enough to excite financial markets, we are doubtful it will be on a scale large enough to transform the economic outlook from an extended period of low inflation and low interest rates.

Conclusion

Low inflation and a strong euro are prompting a growing number of GC members to become very vocal about the possibility of easing monetary policy

To sum up, the euro area economic recovery remains moderate. Although the output gap is closing slowly, inflation remains low and medium-term inflation projections indicate that the ECB is not delivering on its price stability mandate. This situation has prompted a growing number of GC members to be very vocal about the possibility of easing monetary policy again, specifically linking additional stimulus to an excessively strong euro. Our baseline is that the ECB will lower its main refinancing rate at the June meeting. And that it will also lower the deposit rate into negative territory to weaken the euro. But this policy might not be sufficient on its own to lift the inflation outlook, requiring the ECB to counteract some reduction in excess liquidity by ending the sterilisation of the SMP, offering conditional fixed rate LTRO with a maturity of one-year, possibly conditional on SME lending while capping the banks' ability to purchase government bonds. We suspect that these announcements would be accompanied by a further relaxation of some haircuts.

But this is unlikely to be enough, likely forcing the ECB to launch an asset purchase programme, some time in the second half of 2014

But we argue that this is unlikely to be enough, likely forcing the ECB to launch an asset purchase programme, sometime in the second half of 2014. After a long wait, it seems that QE is coming to the euro area as the ECB acknowledges that it needs to do more. Given the large degree of intermediation in the euro area, the banking system needs to be in good health to be able to lend at economic attractive rates for borrowers. Hence the likely inclusion of a sizeable amount of private sector assets, alongside government bonds, in any purchase programme.

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