/

Eurozone

Economics

Special Report

Date 9 January 2014

Gilles Moec

Chief Economist (+44) 20 754-52088 gilles.moec@db.com

The case for a European QE

If the Euro area's GDP grows by 1% this year, as per the ECB's forecast, the massive slack accumulated in the region is unlikely to decline much, leaving deflationary pressure intact. One or two years of sub-target inflation may not have dramatic consequences, as long as long-term inflation expectations remain anchored. If, however, households and businesses start believing that trend nominal GDP has permanently shifted downward, then de-leveraging could accelerate, smothering domestic demand, while the persistent lack of credit origination already is concerning. Deflationary bubbles have a nasty habit of being self-reinforcing.

The ECB seems to consider that with forward guidance and its public toying with "an array of instruments", it has found the right recipe to keep long-term inflation expectations stable. This is a reasonable scenario, and it is effectively our baseline. However, downside risks abound – if anything since the ECB's own AQR/stress tests could exacerbate the deleveraging pressure.

If inflation expectations were to effectively shift down, we think that the most commonly talked about weapons in the ECB's arsenal – another round of vLTROs and/or a negative deposit rate – would not be up to the task.

LTROs are a weak substitute for pure Quantitative Easing (QE), which itself is a weak form of unconventional policy relative to Credit Easing (CE), which is the Fed's approach. Like QE, LTROs create large excess reserves, but unlike QE this is not done on a permanent basis and is demand-led rather than controlled by the central bank, since ultimately the success of the operation is dependent on the banks' preference for liquidity. In addition, creating large excess reserves alone may not suffice to re-start the economy if banks remain reluctant to put them to good use. In such context, a negative deposit rate could be self-defeating. If large excess reserves still existed, "taxing" them could flush them towards lending, but most of the cash created by the first 2 LTROs has already been absorbed. It would be very hard for the ECB to convince banks to build more reserves and at the same time impose a negative remuneration on them.

CE focuses on the impact of change in the central bank's asset side, i.e. how the purchases of assets can alter the entire yield curve and boost the price of riskier assets. True, the financial structure of the Euro area means that some of the transmission channels of CE, such as wealth effects boosting consumption, would be weaker than in the US. However, significantly lowering the interest rate on government bonds is in our view the most efficient and least disruptive way to wean banks off this asset class and incentivize them to lend to the private sector again. In addition, given the centrality of the banking sector in the European economy, purchases of private assets – in particular ABS backed by loans to SME – by the ECB would help jolt credit origination.

GDP-weighted financial asset purchases across the whole Euro area would be at the same time more efficient and politically more acceptable than any action targeted at the struggling countries alone. Indeed, the decline in returns in core could finally re-start cross-border lending, the ultimate response to fragmentation. Across the board purchases, clearly motivated by the need to keep inflation expectations in line with price stability are probably more consistent with the spirit of the European Treaty than a country-by-country approach.

ECB board member Mersch stated that "buying portfolios of euro member state government bonds would pose immense economic, legal and political challenges". We certainly agree that the hurdles would be very significant. However, we do not think this option should be taboo.



What if the current approach fails?

The ECB at this stage is probably holding its breath. Maybe, just maybe, the degree of accommodation provided so far will prove a solid enough safety net to the Euro area's budding recovery. Indeed, the pace of fiscal accommodation is slowing down, providing a breather to domestic demand, which could be further supported by the near-completion of the private sector's financial adjustment in some countries such as Spain. Solid growth in the US, the UK and China should allow net trade to continue to contribute positively to Euro area growth in spite of the stubborn strength in the euro. Beyond this cyclical impulse, the banks' clean-up brought about by the ECB's AQR/stress test would finally unlock credit origination, crowning the recovery process. This is actually our baseline.

Still, a growth rate of 1% in 2014, as per the ECB's forecast, is unlikely to suffice to curb the accumulated output gap. There is ample literature on the difficulty to use real-time measure of slack to steer monetary policy, and just as much on the now looser relationship between the output gap and inflation. Yet, in our view we are way past the "uncertainty margin". The European Commission, the OECD and the IMF estimate the output gap at between -2.5% and -4% of GDP for 2013.

Beyond the large size of the output gap, the decline in the estimates of potential GDP also is problematic. This is the result of the decrease in the stock of capital brought about by the fall in investment since 2008, as well as by the deterioration in human capital triggered by the rise in unemployment, while the effect structural reforms – often timid – in the struggling countries is largely offset in our view by the particularly large increase in youth unemployment, which specifically deteriorate productivity gains on a lasting basis.

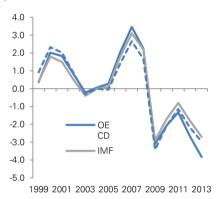
Large slack and low inflation today, combined with the perception that potential growth itself has taken a hit can create the sentiment, for households and businesses, that nominal growth has permanently shifted downward. This means that the real burden of accumulated debt has permanently increased. A natural reaction then would be to reduce the stock of debt today, i.e. to accelerate the pace of de-leveraging. This could become self-reinforcing, since faster deleveraging would smother domestic demand, thus taking the output gap and inflation further down.

The weakness in credit origination continues. For now, the credit impulse (year-on-year change in the flow of new loans to households and businesses) is still consistent with a slower contraction in domestic demand (see Figure 2) but to propel it in positive territory we will need to see some turnaround in lending.

The ECB's stress tests can stand in the way of the recovery in credit origination either because (i) in the run-up to the stress test banks decide to accelerate their de-leveraging – while the ECB stated that the stress test would take the situation as of 31 December 2013 they also made it plain that they would take any progress in 2014 into account for their final assessment, to be released in November – or (ii) for fear of triggering market turmoil without proper backstop in place, in a context of far from perfect banking union, the ECB finally opts for a very benign "stress test" which would ultimately fail to jolt banks back into lending.

True, one needs to go to the second decimal to detect any decline in long term inflation expectations in the Euro area as measured by the Survey of Professional Forecasters. When rounded at the first decimal, the 5 year projection is still at 1.9%, exactly in line with the ECB's target.

Figure 1: We are past the measurement error margin on the Euro area's output gap



Source: OECD, EC, IMF: Deutsche Bank

Figure 2: We will soon need a positive credit impulse for our forecast for domestic demand to materialise



Page 2 Deutsche Bank AG/London



Actually, what is striking is how little inflation expectations move in the Euro area compared to the US¹. The apparent solidity of long term inflation expectations in the Euro area may be affected by a significant asymmetry bias. Indeed, it is possible that in an environment where strong inflationary pressure was the most-feared risk around the baseline, the perceived conservativeness of the ECB, seen as a heir of the Bundesbank, relative to the Fed's experimentation with "laissez-faire", provided economic agents with a strong insurance.

Conversely, when the biggest risk around the baseline shifts to the downside and deflationary pressures appear, then the ECB needs to "offset" this past conservativeness, at least in agents' perceptions. Forward guidance and the surprise rate cut of November certainly helped to change these perceptions and telegraph the notion that the central bank is taking the deflationary risk seriously. This is proving efficient so far, judging by the very subdued reaction of the European markets for now to the Fed's tapering. Still, the ECB would still have to make good on its commitment to do "more if needed" if the recovery fizzles out. Unfortunately, in our view the most talked about solutions, such as another round of vLTROs or a negative deposit rate may not be strong enough if a proper deflationary sentiment starts to take hold in the Euro area.

So far the ECB only tried weak substitutes to QE

Ultimately, the rationale behind QE can be traced back to this simple comment to Milton Friedman, when asked in 2000 what the BoJ could do to reflate their economy now that they had set their policy rate to zero: *it's very simple: they can buy long-term government securities and they can keep buying them and providing high-powered money until the high-powered money starts getting the economy in an expansion²". Basically, even at the zero interest rate limit, monetary policy can still be expansive, simply by encouraging banks to build excess reserves on their accounts at the central bank, which in the end will find their way to the real economy. In this "pure QE" approach, the focus firmly lies on the liability side of the central bank's balance sheet, i.e. how much liquidity it decides to provide to banks, while the asset side (in Friedman's example, purchasing government bonds) is a pure means to an end. The very level of excess reserves became the official target of the BoJ's monetary policy during 2001 and 2005.*

To some extent, the ECB dabbled with this strategy, but never did so with the resolve showed in the rest of the developed world.

Indeed, the vLTRO of later 2011-early 2012 offered some common characteristics with QE, in particular the massive increase in excess reserves that this instrument triggered. A paper published in the ECB Research Bulletin 3 explicitly made this point. However, in our view the vLTROs were never perfect substitutes to actual QE:

First, vLTROs are a demand-push rather than a supply-pull instrument. Indeed, when the central bank purchases bonds from banks, it controls the quantity of base money it is going to create (which is going to be equal to the actual purchases of securities). In the vLTRO case, the quantity of base money is

¹ See "Are Long-Run Inflation Expectations Anchored More Firmly in the Euro area than in the United States?", Beechey et al, American Economic Journal, April 2011.

² Quoted in "Methods of Policy Accommodation at the Interest-Rate Lower Bound". Michael Woodford, 2012

³ "Macroeconomic effects of large scale asset purchase programs", by Mark Gertler and Peter Karadi, ECB Research Bulletin, spring 2013. Note that the similarity between the Fed's QE1 and the LTROs is not explored in their quantified analysis of the impact of asset purchases.



determined by the banks' willingness to participate to the operation. It so happened that the vLTROs of late 2011-early 2012 were a success because the demand for liquidity in the European banking sector was extremely high. At the time, even French banks, at least one-step removed from the peripheral turmoil, were experiencing difficulties to fund themselves in the market (for instance as money market funds in the US refused to roll over their exposure). With banks' access to market largely restored in the Euro area today, it is not obvious that a replication in 2014 of the vLTRO would be met with the same enthusiasm.

Second, vLTROs inherently come with a "leakage option". In the pure version of QE, base money is created on a permanent basis, as it is the counterparty of an outright purchase of securities. This means that the ensuing excess reserves cannot be naturally absorbed. Either they sit forever on the banks' current account, or they are "put to good use" in the form of loans and/or security purchases. At least, they will permanently remain available for transformation. Conversely, vLTROs are repurchase agreements with a finite duration. What's more – or worse – banks retained the capacity to repay early the cash they had borrowed from the ECB.

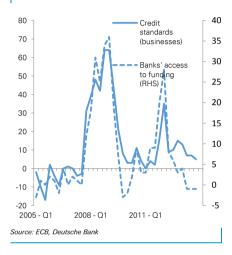
In the end, in our view the vLTRO belongs more to the financial stability arsenal of the ECB than to monetary policy proper. It is only indirectly that it contributes to the central bank's sole goal, i.e. achieving price stability.

The vLTROs brought much welcome visibility to bank funding/liquidity at a crucial moment. This allowed the ECB to address at least one important source of banks' reluctance to lend to the private sector, thus alleviating a credit crunch-led deflationary spiral. However, concerns about liquidity and funding were only one of the reasons which explain why banks in the Euro area chose to tighten their credit standards. In 2013 while banks reported a very significant improvement in their capacity to access markets, credit standards did not loosen accordingly. Beyond the information provided by the Bank Lending Survey, a particular frustrating feature of the Euro area economy at this juncture is precisely that in spite of banks reporting a normalization of their funding constraints, actual credit origination, especially to businesses, remains deeply negative, while the unchanged rejection rate of loan application by SMEs, as reported by the AFS (which surveys borrowers rather than lenders), suggests that supply, rather than demand, is the main culprit –at least in the periphery.

True, in the periphery a significant share of the excess reserves were recycled in purchases of domestic government bonds, thus keeping government borrowing costs in check, contributing to lower funding costs for the economy as a whole. Still, the very fact that the ECB ultimately had to go an extra step and unveil OMT (i.e. potential bond buying) suggests that the vLTRO channel alone was not powerful enough to keep long term interest rates in check on a lasting basis.

These comments do not suggest that vLTROs cannot be useful again. If uncertainty around the situation of European banks were to flare up again in 2014, for instance if the market starts anticipating a less than harmonious outcome of the ECB's AQR/stress test, then another round of vLTROs could be warranted. This operation could be made even more interesting to banks by resorting to a capped interest rate (i.e. the final cost of the vLTRO could never exceed the current level of the refi rate) instead of the weighted average of the refi used in the first 2 LTROs. Still, while the instrument certainly still needs to be part of the ECB's arsenal, its usefulness clearly lies in the realm of liquidity management. Fighting deflationary pressure warrants other tools.

Figure 3: Banks' funding constraints and credit standards



Page 4 Deutsche Bank AG/London



In our view the vLTRO always was a weak substitute to "pure QE", which itself is not as powerful as credit easing.

The obvious limit to the monetarist approach to QE- as described by Friedmanis that the link between the base money and credit origination, which is the main source of money creation, can be very loose. The money multiplier, which connects base money (currency and cash held by banks on their account at the central bank) to money supply (money held by non-financial agents that can be used to effectuate real transactions) can diminish massively in times of stress. Indeed, faced with heightened counterparty risk, banks may choose to maintain large excess reserves instead of lending them. At least in the case of QE the permanent nature of these excess reserves makes it likely that "one of these days" banks' animal spirits will be rekindled and reserves will be used (while with LTRO the operation may unwind before banks change their view), but one may have to wait for a very long time...

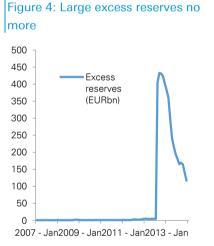
Actually, central banks can use a powerful weapon" which would force banks to turn base money into money supply. Indeed, they can impose a "tax" on excess reserves with a negative deposit rate. In an environment where overall market interest rates are low, the opportunity cost of holding cash reserves (i.e. the cost of NOT using them to buy securities or originate credit) is limited. Still, by taking the remuneration of excess reserves in negative territory, the central bank can increase this opportunity cost to lure banks into making use of base money again, i.e. can raise the money multiplier again.

However, we think that for the ECB the window of opportunity for the use of this weapon has already closed. Indeed, in the periphery excess reserves have already been fully recycled into government bonds, while in core banks have already re-paid a large share of what they took up in the vLTROs. The only banks which still have some sizeable – though diminishing – excess reserves are in Germany (there excess liquidity did not come from the vLTRO but simply from transfers from the rest of the Euro area at the worst of the crisis). Generating another stimulus in Germany is unlikely to be a top priority for the ECB at this stage.

Conceptually, a valid strategy would be to "trick" banks into building large excess reserves again by offering them a vLTRO at capped rate, and then to force this cash out of the banks' account at the central bank by imposing a negative interest rates on these accounts. Actually, this is precisely because the ECB is currently routinely publicly toying with a negative deposit rate that the success of another vLTRO – measured in terms of quantity of base money created – is far from certain. Either banks would balk at taking the risk of a significant negative carry on their cash, or they would be tempted to pay back at the first opportunity their vLTRO money should a negative deposit rate be imminent.

In other words, a negative deposit rate and massive additional liquidity injection could well be mutually exclusive. This, beyond the usual concerns about the adverse effects of a negative deposit rate on lending – with banks tempted to pass the "tax" to the final borrowers by raising retail interest rates or upping fees on their clients' accounts – could explain why no consensus has been reached on the negative deposit rate at the Governing Council.

We note that the Fed, for all its activism, has started paying interest in excess reserves in 2008 and has maintained a positive remuneration ever since. The Fed justifies this by the need to keep the effective Fed Funds rate close to its target.



Source: ECB, Deutsche Bank



The Fed is actually relatively indifferent to the banks' use of the base money it has been creating because it is more interested in the effect of what it does with the asset side of its balance sheet – the kind of securities it buys, rather than on its liability side – how much it lends to banks. Even if the distinction has by now almost disappeared from the policy debate, Bernanke when referring to the Fed policy at least initially preferred the expression of credit easing to quantitative easing, as the Fed focuses "on the mix of loans securities it holds and how this composition of assets affects credit conditions for households and businesses4". For the Fed, the displacement, of the portfolio reallocation effect triggered by its purchases is the main transmission channel of its unconventional monetary policy. In the end, simply inflating base money cannot be a strong enough tool.

So far, the ECB has always balked at this approach. The volume of the various outright purchases programs launched by the ECB since 2008 amounts to a paltry 3.5% of GDP (CPPP 1 and 2 – covered bonds – and SMP – sovereign bonds) against 25.6% of GDP for the Fed and 26.3% for the BoE. Beyond the difference in size, the few examples of asset purchases – such as the SMP program – were never made as explicit as the Fed of the BoE's measures (no time-frame for instance for SMP, no indication of which signatures would be bought and by how much).

Credit easing rather than QE: more than semantics

Credit easing works its way through two main channels:

First, keeping down the real cost of funding for borrowers. The decision to leverage depends, inter alia, on the difference between the expected pace of inflation and the interest rate over the whole course of the operation. In a situation where the output gap is massively negative, and expected to remain so for long, inflation is likely to fall. Taking policy rates to zero may not suffice to make long term interest rates consistent with the new expected path for prices if the term and risk premia do not fall.

The purchases of long term government securities by the central bank can "force" these two premia down. First, the term premium is going to be artificially driven down by the scarcity created by the removal from the market – by the central bank – of a significant share of the stock of bonds. Second, the risk premium will fall as the central bank's willingness to fund – albeit indirectly – the governments makes their fiscal situation more manageable.

Second, purchase of securities by the central bank triggers positive wealth effects which can boost private spending. Removing from the investible market a significant amount of risk-free assets (credit, equity) will force a portfolio reallocation towards riskier assets, thus reflating their prices. Wealth effects can boost consumer spending by raising the propensity to consume (the increase in the value of the financial holdings reduces the need to save to achieve a targeted wealth to income ratio) as well as support investment, as the rise in firms capitalization boosts capex via the "Tobin Q" mechanism (when the market value of an additional unit of capital exceeds its replacement cost a firm can raise its profit by investing). Incidentally, the reduction in the government bond yields keeps public debt servicing cost in check and can help avoiding tax hikes which would dampen private demand. Finally, the central bank can directly target key asset prices to support specific areas which it deems crucial for the recovery (e.g. the Fed's decision to purchase Mortgage Backed Securities to spur the rebound of the housing market)

-

 $^{^4}$ See "the crisis and the policy response", speech by Ben Bernanke at the LSE on 13 January 2009



Boosting banks' excess reserves – especially if it is done on a time-limited basis as was the case for the LTRO – does not necessarily have any impact on actual lending unless the main cause for banks' reluctance to extend credit is their own funding constraints. Conversely, raising asset prices improves the balance sheet position of firms and thus helps them to provide collateral for external finance, reducing the risk for lenders, following the mechanism developed by Bernanke and Gertler⁵. Lower rates across the yield curve and higher risky asset prices do not simply create a window of opportunity for borrowers to raise more funds (demand side) but also indirectly help boost the supply of funds.

Credit easing thus fights deflationary forces on two fronts: keeping the cost of funding consistent with the transitory decline in inflation brought about by the negative output gap, and rekindling demand to help plug the output gap faster.

Hoffmann and Zhu at the BIS⁶ have recently looked into the market reaction to purchases of assets in the US and the UK. They suggest first that inflation expectations (measured by market data or by experts' projections), after their sharp decline after the demise of Lehman Brothers, rebounded after the announcements of the first asset purchase programmes of the Fed in late 2008 and early 2009, while the subsequent programmes' effect was less clear-cut. The event study (market reaction on the very day of the announcement) is less conclusive on the impact of the first programs. However, their regression, controlling for the effect of surprises (distance from consensus) in key macroeconomic data on market-based measures of inflation expectations suggests that "the impacts of purchase announcements have mostly been statistically significant", even if the magnitude of this impact strongly varies across the different episodes of central bank direct activism.

How would CE work on the Euro area as a block?

If one accepts the premises – based on the US and UK precedents -that credit easing can at least lift market valuations and inflation expectations, a valid argument against CE being implemented by the ECB could however be that the transmission of these market developments to the real economy – and thus the capacity to plug the output gap – is much lower in the Euro area than in the US and the UK.

The propensity to spend financial wealth gains – a notoriously difficult relationship to quantify - is not necessarily very different in the Euro area from the US or the UK. Boone and Girouard, using panel data estimate on a selection of OECD countries⁷ find a short-run elasticity of private consumption to financial wealth of 8% in France and 11% in Italy against 6% only in the US (i.e. an increase in financial wealth by 10% would boost French private consumption by 0.8%). More recently, Skudelny, in an ECB working paper ⁸ found an elasticity ranging from 2.4% to 3.6% for the Euro area as a whole, which would not necessarily be inconsistent with Boone and Girouard, since Germany – where households' holdings of equity are half of what they are in France and Italy – usually displays very low wealth effects.

 $^{^{5}}$ "See "Agency costs, collateral and business fluctuations", NBER WP # 2015, 1986.

 $^{^{66}}$ See "Central bank asset purchases and inflation expecations", BIS quarterly review, March 2013.

 $^{^7}$ See "The stock market, the housing market and consumer behaviour", OECD Economic Studies # 35, 2002/2.

⁸ See "Euro area private consumption: is there a role for housing wealth effects", ECB Working Paper Series # 1057, May 2009.



However, a striking difference lies in the sheer quantity of financial wealth accumulated by US households. If one applies to the Fed's Flow of Funds data the same definition of net financial wealth as Skudelny used for his paper on Europe, US households' wealth is 2.5 times larger than their European counterparts⁹. To illustrate the difference in the magnitude of wealth effects across the Atlantic, in 2013 US households' net financial wealth rose by 9% (partly thanks to QE3). Applying an elasticity of 3% (Skudelny's figure for Europe) this would have boosted GDP – before second round effects via investment and job creation – by 1% (2% using Boone and Girouard's). In the Euro area, with a 3% elasticity, the impact on GDP from the same increase in net financial wealth would be just 0.5%. In other words, given the uncertainty on the propensity to consumer financial gains and the difference in the stock of accumulated wealth, wealth effects' impact over growth in Europe probably stand at between a quarter and a half of what they are in the US.

Obviously, Credit Easing can also spur housing prices, in particular when the central bank focuses on purchases of Mortgage Backed Securities, as the Fed is currently doing. However, the transmission mechanism is more straightforward in the US where a standardized asset class exists, and where actual lending rates at the point of origination are directly connected to demand and supply conditions on the MBS market. Things are more complicated in Europe. True, covered bonds allow banks to match the duration of their resources and that of their long term housing loans, but the level of standardization is much lower than in the US and the connection between the yield on one specific source of bank funding and the interest rate charged by banks on mortgages is quite limited in most European countries.

In any case, the impact on consumer spending from housing wealth effect may be limited. In Skudelny's study it stood at only 0.7/0.9% for nominal house prices. In Boone and Girouard the changes in house prices had no significant impact in their model's short term relationship in France and had the wrong sign in the case of Italy.

We could not find recent cross-country estimates of the impact of market capitalization on corporate real investment. Conversely, the "Tobin-Q" mechanism drew significant attention in the 1980s/1990s, when the "big bang" in a number of equity markets allowed many more firms to assess in real time their value, while providing significant variance (e.g. the stock market collapse of 1987) to test the impact of market valuation on real investment decisions. Interestingly, in its classical study of 1993¹⁰, the OECD found that while the causality – in the sense of the Granger test – clearly went from market value to investment for the US and the UK, no such causality relationship could be established in Europe.

Ultimately, these limitations on the Tobin Q effect may simply be the reflection of one major structural difference between Europe on the one hand and the US and the UK on the other: the role of intermediated finance. Indeed, in the Euro area the overwhelming majority of corporate investment funding is done through loans, while in the US security –including equity - issuance dominates.

However, this does not mean that credit easing is intrinsically less efficient in Europe, but rather that its transmission channels probably differ widely from the Anglo-Saxon model.

Page 8 Deutsche Bank AG/London

⁹ The dominance of pay-as-you pension systems in a lot of European countries may partly explain this divergence.

¹⁰ See "The Stock Market and investment", by Warren Tease, OECD Economic Studies # 20, Spring 1993



First, in the US the "higher collateral effect" from higher asset prices described by Bernanke and Gertler probably transits in majority through house prices and hence credit origination to households (through the possibility to extract equity from a house without selling it, something which is virtually impossible in the Euro area). In Europe it probably works through corporate lending (when comparing leverage ratio to market capitalisation for instance).

Second, and more fundamentally, Credit Easing can work by changing the banks' asset allocation between government bonds and lending to the private sector. That the LTROs' money was overly directed towards purchasing peripheral sovereign bonds without boosting credit origination to households and businesses is now a common criticism of the ECB's action. An approach – which seems to be favoured by the Bundesbank's President Jens Weidmann for instance – consists in changing the regulatory environment to impose of non-zero risk weighting on holdings of domestic government bonds when calculating capital ratios. An alternative – and less disruptive in our view, since many governments in the Euro area are still in a too fragile funding position to be easily weaned off banks' support without an alternative buyer - would be for ECB bond buying to deprive the banks of the capacity to earn large carrytrade margins by lowering further the interest rates on sovereign debt.

Indeed, in 2013 we suggested in Focus Europe¹¹ that for banks in the Euro area the actual asset allocation between bonds and loans over the last 10 years can be very satisfyingly explained by a simple model using only two variable: the European Commission Economic Confidence Index (representative of the state of the economy, and hence both the demand for external funds from the corporate sector to invest and finance inventories and the credit worthiness of the borrowers) and the width of the yield curve, the difference between the German 10 year interest rate and EONIA.

Figure 5: The model linking the yield curve to banks' govies buying...

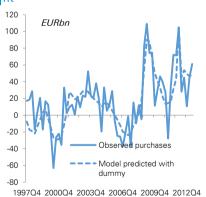
Dependent variable: net flows of government bond purchases by MFIs (EURbn)

	Coefficient t-stat	
EC ESI	-2.3	7.0
Yield curve	9.0	3.3
vLTRO dummy	64.2	3.1
Constant	231.1	7.0
R2	0.7	
Durbin Watson	2.0	

Estimation period 1999Q4/2013Q2

Source: Deutsche Bank





Source: Deutsche Bank

Obviously banks would earn a larger margin by lending to private sector borrowers at rates which would exceed that on government bonds, but :

Banks could then fall in the "adverse selection" trap, where the only companies/individuals ready to take up loans at such high interest rates are those who are "desperate", or offer too few guarantees in terms of

¹¹ See "The AQR and the bank/sovereign nexus", 11 October 2013.



collateral, while the "good risks", with sound business prospects, would actually prefer to postpone their funding operation.

 At the current level of sovereign yields in the periphery, banks make a decent enough margin to cover their costs and even make profits.

Massive purchases of government bonds by the central bank, by reducing the sovereign yields, would make it very difficult for banks to maintain their profits without diversifying away from this asset class. At the same time, at the level of yields that governments are *currently* paying – 4% on an Italian and Spanish 10 year – banks would likely find "good risks" in the private sector willing to take up loans.

To complement this "curve compression approach", the ECB could at the same time purchase corporate bonds and asset-backed securities.

Even low-quality corporate bonds are already trading comfortably at the moment, so it may seem strange to reduce their yields further through central bank purchases. However, recall that in this paper we explore a world where the current recovery is being smothered, possibly triggering re-pricing on the credit market, especially in a situation in which the ongoing normalization of the US monetary policy push the yield on the international risk free asset up. More fundamentally, reducing further the interest rates on corporate bonds would logically drive more borrowers out of loans towards disintermediated funding. This in the end could force banks to react, for fear of losing more market share. True, the majority of businesses in the Euro area cannot access the bond market. However, if a growing proportion of those who can actually can stop using loans, banks will have little alternative than to look into the SMEs in search of good risks to lend to.

Finally, ABS purchases by the ECB, especially those backed by SME loans, would provide an additional incentive. Indeed, as banks struggle to reduce their overall risk exposure but also need to maintain a decent interest rate margin, securitizing out their business lending risk would appear as an attractive solution.

A frequent criticism of this approach is that the available pool of ABS is quite limited. Our rate strategy team estimated 12 the quantity of ABS rated at least BB- stands at only EUR513bn, the overwhelming majority of them being linked to the real estate market. They could find only EUR50bn in securities backed by SME loans in the Euro area as a whole. We do not think it is necessarily a major hurdle. Indeed, in our view the main benefit of ECB buying would be to "prime the pump" and develop a market which could then take out of banks' balance sheet a significant share of business lending. The issue there, as often with Credit Easing in the monetary union in general, lies in the realm of political economy. Assessing the risks when taking onto the Eurosystem's balance sheet such a new asset class on a potentially permanent basis would require a very high level of trust across the various national central banks, who presumably would ultimately need to use their own models, since rating agencies do not routinely rate SMEs.

 $^{^{12}}$ See "Talking the talk, but will they walk the walk". 22 November 2013.



Credit easing and European fragmentation: the political economy conundrum

Virtual or actual sovereign bond buying by the ECB has so far been targeted to specific signatures, either after a discretionary decision by the central bank itself (SMP) or because intervention would be subject to a request by the relevant government within the framework of European support through the ESM. However, in our view, if the ECB had to/chose to go down the Credit Easing road, then purchasing assets across the board, for instance following the ECB's capital key to distribute the buying across the signature, would be preferable.

- First, some of the core Euro area countries are not in the best of shape at the moment (France, Netherlands and Finland) and could do with a bit more accommodation).
- Second, lower returns in core, coupled with at least a decent financial position of banks there, could re-start cross-border lending towards the periphery. GDP-weighted purchases across the board would lower yields throughout the monetary union but would still leave a significant spread between core and periphery. Since the beginning of the European crisis, the Eurosystem has in practice substituted itself to private investors, extending liquidity to domestic banks which allowed them to purchase the assets sold by non-residents. A recovery in banks' cross border lending would the best protection against fragmentation.
- Third, if core investors proved allergic to investing in higher-yielding peripheral assets, their only viable alternative to low-yielding core assets would be to allocate a larger share of their portfolio to non-Euro area assets, thus triggering a (welcome) depreciation in the exchange rate.
- Fourth, such across-the-board purchases would in our view be more consistent with the spirit of the European Treaty than the piecemeal OMT (or SMP for that matter). Indeed, the ECB statute makes it plain that the central bank can purchase government securities for monetary policy purchases. Credit easing benefiting the entirety of the area and unambiguously motivated by the need to fight deflationary pressure fully in line with the objective set to the ECB by the European treaty falls much more securely within the realm of monetary policy.

Obviously, further reducing the interest rates on government bonds in Germany – or at least resisting the moderate upward pressure at play since touching a recent low at 1.68% on a 10 year on 18 November - is unlikely to be popular with local savers. However, Credit Easing could have a number of positive effects over the long run. Sustained strong support for riskier assets should ultimately displace some of the accumulated wealth towards equity, bringing typical German portfolios closer to the European average and lifting their overall return which, given the demographic challenges there, would need to be sufficiently high to provide enough replacement income in the future.

Obviously, that such configuration could be conducive to a significant moral hazard in the periphery (and elsewhere...) since Credit Easing as we outlined it in this note could well act as cover for governments to renege on their fiscal/structural reforms commitments. This obviously contrasts with OMT where clear and detailed conditionality – as well as monitoring – would be needed. This would be at odds with what a number of peripheral governments ultimately need, i.e. a higher pace of potential growth which would ultimately be the best guarantee that their public and private debt would remain sustainable.



In a nutshell there is no proper to reconcile the swiftness of execution that Credit Easing would demand with the need to maintain governments on the right fiscal and reform path.

However, the Euro area has changed since 2010/2011. Most governments have made significant progress on reducing their structural deficits, including extreme cases such as Greece. Moreover, it is now a consensual view in Europe, supported by the IMF and at least implicitly by the German government that budgetary targets need to be more realistic. The fiscal stance – as sanctioned by the European Commission for 2014 – will in any case be much less restrictive than at the peak of austerity in 2011/2012. Credit Easing would not necessarily trigger some relaxation in the struggling countries, for the simple reason that this is already happening without any incentive from the central bank.

True, progress on structural reforms is patchier. While the Spanish adjustment has been impressive – prolonged only recently by another far-reaching pension reform – Italy's relative inaction is concerning. However, there at least we are now seeing signs of political stabilisation which are probably the first prerequisite for reforms.

Still, the articulation of Credit Easing with OMT could prove to be a tricky issue. The very existence of CE – assuming it would not be jeopardized by the German Constitutional Court – could undermine the survival of OMT as a separate instrument: why would the Court accept a country-by-country approach, with a controversial link to monetary policy proper, if there's a more convincing instrument operating on a cross-border. Technically, it is very likely that the Court will make its decision on OMT public in early 2014 before any real debate on QE is likely to start at the Governing Council. Still, that the Court, in its ruling on OMT, creates limitations which could also apply to any sort of bond buying is a non-negligible risk.

Conclusion: debate needed

That Credit Easing would be much more delicate, politically, in the Euro area than in the US is obvious, in our view, and justifies that the bar – in terms of cyclical conditions - to get it activated remains much higher in the former than in the latter. Still, we do not think that it should be taboo and dismissed out of hand. True, the economic effects of such instrument would be uncertain in Europe. They were also uncertain – and they are still hotly debated – in the US. On balance, we think that the framework we laid out in this note would work. A proper debate on how Europe could use Credit Easing, should the current recovery fizzle out, would be welcome in our view.

Page 12 Deutsche Bank AG/London

Special Report: The case for a European QE



Appendix 1

Important Disclosures

Additional information available upon request

For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at http://gm.db.com/ger/disclosure/DisclosureDirectory.egsr

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Gilles Moec



Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at https://gm.db.com/equities under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

2. Short-Term Trade Ideas

Deutsche Bank equity research analysts sometimes have shorter-term trade ideas (known as SOLAR ideas) that are consistent or inconsistent with Deutsche Bank's existing longer term ratings. These trade ideas can be found at the SOLAR link at http://gm.db.com.

3. Country-Specific Disclosures

Australia and New Zealand: This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act respectively.

Brazil: The views expressed above accurately reflect personal views of the authors about the subject company(ies) and its(their) securities, including in relation to Deutsche Bank. The compensation of the equity research analyst(s) is indirectly affected by revenues deriving from the business and financial transactions of Deutsche Bank. In cases where at least one Brazil based analyst (identified by a phone number starting with +55 country code) has taken part in the preparation of this research report, the Brazil based analyst whose name appears first assumes primary responsibility for its content from a Brazilian regulatory perspective and for its compliance with CVM Instruction # 483.

EU countries: Disclosures relating to our obligations under MiFiD can be found at http://www.globalmarkets.db.com/riskdisclosures.

Japan: Disclosures under the Financial Instruments and Exchange Law: Company name - Deutsche Securities Inc. Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association, The Financial Futures Association of Japan, Japan Investment Advisers Association. This report is not meant to solicit the purchase of specific financial instruments or related services. We may charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless "Japan" or "Nippon" is specifically designated in the name of the entity.

Malaysia: Deutsche Bank AG and/or its affiliate(s) may maintain positions in the securities referred to herein and may from time to time offer those securities for purchase or may have an interest to purchase such securities. Deutsche Bank may engage in transactions in a manner inconsistent with the views discussed herein.

Russia: This information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Risks to Fixed Income Positions

Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor that is long fixed rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or the liquidation of positions), and settlement issues related to local clearing houses are also important risk factors to be considered. The sensitivity of fixed income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates - these are common in emerging markets. It is important to note that the index fixings may -- by construction -- lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. It is also important to acknowledge that funding in a currency that differs from the currency in which the coupons to be received are denominated carries FX risk. Naturally, options on swaps (swaptions) also bear the risks typical to options in addition to the risks related to rates movements.



David Folkerts-Landau

Group Chief Economist Member of the Group Executive Committee

Guy Ashton Global Chief Operating Officer Research

Marcel Cassard Global Head FICC Research & Global Macro Economics Richard Smith and Steve Pollard Co-Global Heads **Equity Research**

Michael Spencer Regional Head Asia Pacific Research

Ralf Hoffmann Regional Head Deutsche Bank Research, Germany

Andreas Neubauer Regional Head Equity Research, Germany

Steve Pollard Regional Head Americas Research

International Locations

Deutsche Bank AG Deutsche Bank Place

Level 16 Corner of Hunter & Phillip Streets Sydney, NSW 2000

Australia

Tel: (61) 2 8258 1234

Deutsche Bank AG London

1 Great Winchester Street London EC2N 2EQ United Kingdom

Deutsche Bank AG

Große Gallusstraße 10-14 60272 Frankfurt am Main Germany

Tel: (49) 69 910 00

Deutsche Bank AG

Filiale Hongkong International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong

Tel: (852) 2203 8888

Deutsche Securities Inc.

2-11-1 Nagatacho Sanno Park Tower Chiyoda-ku, Tokyo 100-6171

Tel: (81) 3 5156 6770

Tel: (44) 20 7545 8000

Deutsche Bank Securities Inc.

60 Wall Street New York, NY 10005 United States of America Tel: (1) 212 250 2500

Global Disclaimer

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. Deutsche Bank makes no representation as to the accuracy or completeness of such information

Deutsche Bank may engage in securities transactions, on a proprietary basis or otherwise, in a manner inconsistent with the view taken in this research report. In addition, others within Deutsche Bank, including strategists and sales staff, may take a view that is inconsistent with that taken in this research report.

Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank has no obligation to no update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Prices and availability of financial instruments are subject to change without notice. This report is provided for informational purposes only. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst judgement. As a result of Deutsche Bank's March 2010 acquisition of BHF-Bank AG, a security may be covered by more than one analyst within the Deutsche Bank group. Each of these analysts may use differing methodologies to value the security; as a result, the recommendations may differ and the price targets and estimates of each may vary widely. The financial instruments discussed in this report may not be suitable for all investors and investors must make their own informed investment decisions. Stock transactions can lead to losses as a result of price fluctations and other factors. If a financial instrument is denominated in a currency other than an investor's currency a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Deutsche Bank may with respect to securities covered by this report, sell to or buy from extended to the price of the price of the decidence of the decidence of the price of customers on a principal basis, and consider this report in deciding to trade on a proprietary basis.

Derivative transactions involve numerous risks including, among others, market, counterparty default and illiquidity risk. The appropriateness or otherwise of these products for use by investors is dependent on the investors' own circumstances including their tax position, their regulatory environment and the nature of their other assets and liabilities and as such investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option investors must review the "Characteristics and Risks of Standardized Options," at http://www.theocc.com/components/docs/riskstoc.pdf . If you are unable to access the website please contact Deutsche Bank AG at +1 (212) 250-7994, for a copy of this important document.

The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading losses may be incurred that are greater than the amount of funds initially deposited.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this report is approved and/or communicated by Deutsche Bank AG Frankfurt authorized by the BaFin. In the United Kingdom this report is approved and/or communicated by Deutsche Bank AG. London, a member of the London Stock Exchange and regulated by the Financial Conduct Authority for the conduct of investment business in the UT and authorized by the BaFin. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, +65 6423 8001), and recipients in Singapore of this report are to contact Deutsche Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch (One names Quay #18-00 South Tower Shappore Branch or Deutsche Securities Asia Limited, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/910). Additional information relative to securities, other financial products or issued or published by any person for any purpose without Deutsche Bank's prior written consent. Please cite source when quoting.

Copyright @ 2013 Deutsche Bank AG