Non-Conventional Monetary Policy and Its Interplay with Financial Stability[1]

Yves Mersch

From December 2011 onwards, inflation in the Euro area began a sustained downward drift, reaching its trough in January 2015. Responding to this situation would be challenging for monetary policy in any circumstances, but was made especially difficult because at that time, nominal interest rates were already very low. In this context, we have taken what, at face value, may appear to be a series of very unconventional measures – forward guidance, ABS purchases, sovereign bond purchases, to name but a few.

In this article, I argue that, while these non-conventional monetary policy measures have been effective in fighting deflationary pressures, they must, however, remain exceptional and time-bound. The reason is that a prolonged period of accommodative monetary policy might otherwise have unintended effects on financial stability. I also argue in this article that the division of labor between policy makers must be kept clear. Monetary policy should focus on price stability. Macroprudential policy should focus on financial stability.

1. The ECB's Recent Non-conventional Monetary Policies Aimed at Responding to Low Inflation

Albeit the European Central Bank (ECB) has taken a number of non-conventional measures in the wake of the financial crisis, the objective of these measures has remained thoroughly conventional: it is to secure medium-term price stability. In fact those measures fit together as a coherent package that reinforces our traditional monetary policy strategy of steering inflation developments largely through the bank lending channel. This package has three parts.

1.1 Forward Guidance

The first part has been measures to increase the influence of our interest rate policy over the shape of the yield curve – especially the longer-term maturities that have the strongest link to loan pricing in the real economy. As the inflation outlook was deteriorating, we both reduced our main refinancing rate to the lower bound and introduced measures to augment the impact of those very low short-term rates on longer-term rates.

This has notably included steering downwards expectations about the expected path of short-term rates. Indeed, when facing a Zero Lower Bound on its nominal policy rate, a central bank can still affect current allocations by committing to future monetary stimulus, as emphasized by Eggertsson and Woodford (2003). In the aftermath of the Great Recession, the ECB, along with several other central banks, started to implement such forward guidance policies. Such policies have been effective in lowering expected future short-term interest rates, and have helped further flatten

the yield curve, as illustrated by e.g., Swansson and Williams (2014). Overall, this has measurably increased the traction of our interest rate policy on relevant market rates.

This impact on future interest rates does not guarantee that forward guidance policies were effectively expansionary, though. As stressed by Campbell et al. (2012), such reaction of expected future interest rates can in effect be associated with two different types of forward guidance. On the one hand, it can convey information on commitment to future expansionary policy. One the other hand, economic agents may misinterpret the measure as an indication that the central banks are pessimistic about macroeconomic fundamentals.[2] It is one thing for the central bank to reduce market rates at maturities that are pertinent to loan pricing; it is another for financial intermediaries to reflect those lower rates in the price and availability of credit for firms and households, if they are pessimistic about the macroeconomic outlook.

By mid-2014, we were still not seeing movements in the yield curve being reflected in the actual borrowing conditions faced by firms and households across the Euro area. This meant that the considerable easing through lower rates and forward guidance was not having the impact we would normally expect. In particular, viable firms were still struggling to access finance in parts of the Euro area. The percentage of financially constrained but viable Small and Medium Enterprises (SMEs) – defined as those with positive turnover in the last six months seeking a bank loan – was estimated to have varied from around 1% in Germany and Austria to a quarter of the SME population in Spain and as much as a third in Portugal.

1.2 Credit Easing

It is in this context, between June and September 2014, that we launched our credit easing package, in order to strengthen banks' incentives to improve the availability and lower the price of credit. The package took the form of targeted long-term refinancing operations (TLTROs), which provided cheap long-term funding to banks on the condition that they expand loans to the real economy, and thereby help restore a more normal supply and pricing of credit.

In parallel, the ECB gave its full technical and operational support to the Comprehensive Assessment of bank balance sheets – the supervisory exercise aimed at forcing banks to acknowledge non-performing exposures and to raise provisions and capital where needed. This exercise was powerful in the sense that it accelerated what had until that point been a slow process of balance sheet repair in the Euro area. In the run up to the Comprehensive Assessment, banks strengthened their capital by over €200 billion. In this way, the new monetary policy impulse coming from our credit easing package coincided with a banking sector in a stronger position to transmit it.

As the credit easing program gathered steam, this is indeed what happened. The ECB's bank lending survey confirmed that competition for good credit among banks increased after the TLTRO. Banks squeezed their margins and reduced their lending rates. Lower rates in turn created more net demand for borrowing. And banks began to

search for the "next tier" of borrowers, leading to a gradual and more pervasive easing of credit standards for non-financial corporations. Importantly, this process was driven predominantly by the very banks, which had drawn on the TLTROs and operate in both stressed and non-stressed countries. As a result, the credit easing package led to a convergence in the cost of borrowing across Euro area countries. At that time, the dispersion in average lending rates across Euro area countries was reduced to levels unseen since the start of the sovereign debt crisis.

However, as these measures were coming into effect, the Euro area was hit, like all advanced economies, with a further downward shock to inflation emanating from the sharp fall in global oil prices that began in late summer 2014. Oil price development added further disinflationary pressures, feeding into core inflation. The result was that, by January 2015, the Euro area was experiencing negative headline inflation rates and a generalized decline in measures of actual and expected inflation. In normal times, my preference would naturally have been to look through such a development provided that it did not feed into medium-term expectations. Indeed, inflation also fell into negative territory due to lower oil prices in 2009, and we had not reacted back then because we were confident that the fall in inflation would be transitory. The conditions we faced in January 2015, however, gave us no such comfort. There were two main reasons why we feared that, this time around, the observed disinflationary pressures were not temporary in nature.

First, while the fluctuations in inflation in the second half of the year were clearly being driven by supply factors, there were strong signs that the trend was being driven by weak aggregate demand. This was visible both at the macro level in a still wide output gap and a declining rate of core inflation; and at the micro level in subdued negotiated wages and low pricing power among firms. In other words, we were not merely facing a downward shock to prices. We were also facing a downward shock to inflation dynamics, a sustained adverse development. Second, and this for me was decisive, we witnessed a loosening in the anchoring of inflation expectations even at maturities and at horizons that we would normally expect to be more resilient to short-term inflation dynamics. This was in stark contrast to 2009, when inflation expectations hardly moved, even at the short end.

Our analyses in early 2015 were showing that the persistence of low inflation across a range of statistical metrics was higher than in 2009. Also, inflation expectations had become, at all horizons, less well anchored to our objective and more sensitive to realized inflation. Measures of core inflation, had thus, become less sticky, implying a higher risk that low realized and expected inflation would become entrenched in wage setting behavior.

1.3 Outright Asset Purchases

It was in this context that we launched the third part of our response, the ultima ratio decision to purchase assets, including public ones, as another tool of monetary policy. It was absolutely crucial at that time that we lifted and re-anchored inflation

expectations and warded off these potential second round effects. This is not only because stable inflation expectations are vital for medium-term price stability. It is also because, with interest rates at the effective lower bound, any fall in inflation expectations implies a rise in real interest rates and can counteract the credit easing we were trying to engineer. In fact, by January 2015, expected real rates had started rising – increasing by almost half a percentage point in the previous few months alone. The cost of deflation protection had also gone up by 185 basis points between 2 December 2014 and 9 January 2015, showing that investors saw a material risk that inflation could fall further. We had to react pre-emptively and decisively. At the lower bound, we had only one single option: large-scale asset purchases become the only tool to reinforce the monetary policy impulse in a way that had an immediate and meaningful impact on expectations. While our switch to asset purchases had already begun in September with the launch of our private asset purchase program, it was clear by January 2015 that interventions in those specific markets alone would not be sufficient to achieve the required impact. To firmly lift and re-anchor inflation expectations, we needed to alter both the composition of our program – to broaden the channels through which it would raise future inflation and hence affect expectations today – and the size – so that the monetary policy impulse through each of those channels would be stronger. The only markets in which we could achieve this dual effect were public sector assets.

Our public sector purchase program works through three main transmission channels. The first transmission channel is an asset valuation channel. The purchase of public sector assets creates strong direct price effects in markets that are key for loan dynamics (see Middeldorp, 2015). In particular, for the corporate loans that are the closest substitutes to those assets, nominal rates are now extremely low across nearly all Euro area countries. As the level of nominal rates goes down, real rates decrease, which stimulate private investment. The second channel goes through portfolio rebalancing effects, as investors are displaced across asset classes – affecting risk preferences – and across jurisdictions – affecting the exchange rate. This process has multiple transmission channels to the real economy but one key channel goes through banks: on the liability side, portfolio rebalancing reduces the cost of market debt for banks, and on the asset side, it increases the opportunity cost of holding henceforth still risk-free securities, such as government bonds, over extending loans to the real economy. Finally, asset purchases have a strong signalling effect. They send a powerful signal that we will not allow price stability to be jeopardized, which helps re-anchor inflation expectations and lower real interest rates. They also signal that liquidity will keep expanding, which supports a flattening of the term structure and further supports the easing of real interest rates and the exchange rate. The effectiveness of these signalling effects is predicated on the implementation of our program in full, as we have communicated – that is, we will maintain the pace and volume of our intervention until we see a sustained return of inflation towards a level below but close to 2% over the medium-term.

In all these ways, our asset purchase program therefore represents a continuation and extension of previous measures – it reinforces our credit easing and more generally the bank lending channel. In this sense, I share the view that "quantitative easing"

is something of a misnomer. To be sure, the quantity dimension of large-scale asset purchases matters, but only insofar as it affects prices and hence credit conditions.

While it is clear that in as extraordinary circumstances as the current ones we need new instruments to meet our objective of price stability, there is a clear distinction between monetary policy instruments - which have to adapt to circumstances - and monetary policy objectives. To be clear, what anchors trust in the ECB is that our objective and strategy stay constant, even more so when monetary policy instruments become less conventional. For this reason, I firmly believe that any change in our strategy, such targeting a price level or raising the level of inflation in our definition of price stability, would be counterproductive in the current environment.

2. The ECB's Recent Non-conventional Monetary Policies Have Been Effective

In terms of reaching our objective, our package of measures is already having strong effects – perhaps stronger even than many observers anticipated. The latest data on bank lending show continued improvements in the cost of credit, the availability for credit and the demand for credit. Confidence has also notably improved, with the latest European Commission economic sentiment indicator confirming the pick-up in both consumer and business confidence. And the more confident firms and households feel in the recovery, the more credit should continue to improve.

Crucially, our intervention in January 2015 halted and then reversed the fall in inflation expectations. For example, the 5-year forward 5-year ahead inflation-linked swap rate has risen from its trough of below 1.5% in January to more than 1.8% by May 2015. In turn, our intervention also prevented second round effects through lower wage settlements and higher real debt burdens.

To the extent that a prolonged period of accommodative monetary policy might come with adverse side effects on the stability of the financial sector, I believe that our unconventional monetary policy measures must remain exceptional and time-bound, though. This is because the longer such measures persist, the greater the risks that may come with them. To be clear, this is not a question of trade-offs. We cannot shy away from implementing a policy that ensures price stability on account of potential collateral effects. Nor can we extend the medium-term to horizons that compromise our objective. Yet at the same time, we need to understand and manage those potential collateral effects – and in pursuing our mandate we should attempt, to the extent possible, to minimize them. Where this is not possible, we have a duty to raise awareness so that mitigating or corrective action can be taken by other relevant authorities.

3. Complementarities and Potential Conflicts between Non-standard Monetary Policy Measures and Financial Stability

3.1 Complementarities between Price Stability and Financial Stability Objectives

The ECB's objective of price stability in the medium run is not incompatible with the macroprudential objective of financial stability. In many instances, the two objectives complement each other.

In normal times, during a credit boom, for example, it might be appropriate for monetary authorities to take financial stability into account in its assessment of the appropriate level of interest rates. Indeed, it is well known that most financial crises are "credit booms gone wrong" (e.g., Schularik and Taylor, 2012), and that the recessions that follow such crises are among the deepest (e.g., Claessens et al., 2008, 2011). By raising rates to choke off credit developments before credit booms turn around, the central bank may help prevent financial crises and deep recessions, and avoid the deflationary pressures that typically come along with such deep financial recessions. Symmetrically, lowering rates in a downturn to support funding to the financial sector will safeguard the transmission of monetary policy and hence help achieve price stability in the medium-term. Similarly, the countercyclicality of macroprudential policies can help central banks tame inflation (Angeloni and Faia, 2013) and, in the specific context of a heterogeneous monetary union, country specific countercyclical macroprudential policies might even help the central bank implement a more homogenous monetary policy stance across countries (Brzoza-Brzezina et al., 2013).

The existence of such complementarities is the reason why I am supportive of the "leaning against the wind" argument, in both directions, provided of course that instruments and objectives are consistent.

The complementarities between the price and financial stability objectives have also been made clear during the recent financial crisis. In the Euro area, the high private and government indebtedness and persistent debt overhang, which resulted from the pre-crisis credit booms and governments' responses to the crisis, have reduced the effectiveness of standard monetary policy in the wake of the crisis and, as I explained earlier, forced us to devise and implement novel and non-standard monetary policy measures. Recent studies suggest that those measures had the indirect effect of helping banks repair their balance sheet and improve their capital position, thereby contributing to restoring financial stability. For example, Acharya and Steffen (2014) show that, in the first stage of the crisis, large European banks with low capital ratios borrowed at low rates from the Eurosystem and lent at higher rates to peripheral sovereigns. Those carry trade activities helped those banks replenish their capital without issuing outside equity, at a time when outside equity was expensive for them. A study by Cohen and Scatigna (2014) thus shows that bank capital ratios have increased steadily since the financial crisis and that the bulk of the increase comes from retained earnings.

3.2 Potential Conflicts between Price Stability and Financial Stability Objectives

Non-standard monetary policy can help banks secure funding, restore profitability, and build up capital only to a limited and temporary extent, though. Potentially, there could be a risk of keeping monetary policy too accommodative for too long, even when unemployment rates remain elevated and inflation remain stubbornly low. Part of the reason comes from the fact that many Euro area economies are in a balance sheet recession. Balance sheet recessions differ in important ways from standard business cycle recessions.

In a balance sheet recession, the weak growth and inflation are not just, or even primarily, a question of deficient demand. They cannot be fully addressed through accommodative monetary policy, be it standard or not. Recent research has, indeed, found that the relationship between the degree of monetary accommodation during recessions and the strength of the recovery is weaker when banks' financial intermediation function is impaired (Bech et al., 2014). Non-standard monetary policies do have an impact on asset prices, markets, and bank capital; but they also have limits and diminishing returns. Term and risk premia can only be compressed up to a point, and in recent years, they have already reached or approached historical lows. One risk is that, over time, monetary policy loses traction while its side effects proliferate.

Financial booms typically leave in their wake not only debt overhang, but also too much capital and labor in the wrong sectors. For example, a recent study by Foster et al. (2014) shows evidence that during the recent financial recession, there was less factor reallocation across producers than during previous, normal recessions. The usual "cleansing" effect of recessions did not take place this time around. To return to a trajectory of sustained growth, Euro area countries, therefore, have not only to deleverage but also to reallocate labor and capital more efficiently across sectors, both within and across national borders. In this context, one potential adverse side effect of keeping monetary policy accommodative for too long is that it may encourage banks to ever-green their bad debts and postpone the adjustment of their balance sheets, when they should instead reallocate credit to the most productive sectors. Such wrong forms of risk-taking could, in turn, harm bank profitability down the road, and ultimately undo the initial beneficial effects of monetary policy on banks' financial health. I would argue that we have not arrived at this stage yet. So far, there is no evidence that low interest rates are contributing to leverage-driven financial imbalances in the Euro area. Indeed, the most serious financial stability risks tend to be associated with excessive developments in bank credit, and there are no signs of that in the Euro area on average today.

Excessive monetary accommodation may also find its way into asset prices and leverage rather than goods and services price inflation. This is, for example, what happened in the run-up to the crisis, and could well happen again. Indeed, while unemployment rates in the Euro area have on average stayed high despite monetary easing, stock markets have recovered. If, for example, a stock price bubble were to

emerge and inflation to remain low, then raising rates to combat that financial stability risk would run contrary to our price stability objective. On the other hand, if inflation were to rise but banks in the Euro area were still repairing their balance sheets, then raising rates could harm bank profitability and have damaging consequences for banks' health.

4. The Division of Labour between Policy Makers is Clear: Monetary Policy Should Focus on Price Stability; Macro-Prudential Policy Should Focus on Financial Stability

To provide a framework for how to think about the potential conflicts between the objectives of price and financial stability, I find it useful to invoke the well-known "Tinbergen Rule," which states that a macroeconomic authority must have at least as many instruments as it has objectives.

Given the hierarchical nature of the ECB's mandate, if we were to face such conflicts, where price stability and financial stability point in different directions for the path of interest rates, we would have to put price stability first. This is our legal obligation. And from an economic point of view, in circumstances where financial stability effectively becomes a distinct objective from price stability, then the Tinbergen Rule implies there has to be instruments other than interest rates to achieve it. Those instruments are of course macroprudential policies.

Following the introduction of the European Capital Requirement Directive (CRDIV), we now have a wide range of new tools available to the competent authorities in the Euro area. With the creation of the Single Supervisory Mechanism (SSM), a stronger framework has also been put in place to coordinate those tools and prevent inaction biases at the national level. Should we see any indications that low interest rates are leading to financial imbalances, the first line of defence is for the competent authorities to make full use of these new instruments.

Yet I am also sympathetic to the view expressed by the Bank for International Settlements (BIS) that we need to approach macroprudential with "a mix of ambition and humility" – that is, we need to be ambitious in using the new tools we have, but we also need to be humble in recognizing their limitations. The Eurosystem recently made an important effort to develop core conceptual frameworks, models and tools in order to improve macroprudential supervision in the EU (ESCB Heads of Research (2014)).[3] Despite the progress made, though, research has still too little to say about the channels through which macroprudential policies work and the magnitude of their effects (see BCBS (2010)). Moreover, as most macroprudential tools are in fact microprudential, conflicts of competence between respective authorities could occur. This all the more that the degree of Europeanization of micro- and macroprudential competencies is not the same – not to speak of the competence pooling of sovereignty in monetary policy. And in any event, macroprudential tools tend to be more effective in building resilience against financial shocks than preventing those shocks in the first

place. For this reason, it would make sense in my view for us to remain fully committed to developing and implementing effective macroprudential policies, but at the same time not to blindly pin all our hopes on them.

Ultimately, the best defence against any conflicts between financial instability and unconventional monetary policy is to make sure that the latter policy does not last longer than strictly necessary. Monetary accommodation can help buy time to implement the necessary balance sheet repair and structural reforms. But it cannot substitute for such measures. This means that we need to maintain the pace and volume of our interventions, as we have communicated, so that inflation rises back towards 2% as quickly as possible and monetary policy can begin to normalize. But it also means something more: if interest rates are low because the natural rate is low, then for interest rates to rise back to more normal levels, the natural rate will have to rise as well. To the extent that a low natural rate reflects weak investment demand caused by low productivity growth, this may only be possible in a context of structural reforms aimed at boosting supply capacity.

5. Conclusion

The downward price pressures over recent years have required the ECB to act forcefully and repeatedly to fulfil its mandate. This culminated in January 2015 with our decision to expand our asset purchase program, in order to stave off deflationary risks and stop the fall of inflation expectations. In doing so, we have sent a strong signal that we will safeguard price stability no matter what. This is our mandate as enshrined in the Treaty. And although our instruments have changed; our conviction and mission have not.

— — — — — — — — — — — — — — — —

Yves Mersch has been a member of the European Central Bank's Executive Board since December 2012. He has also served as the Governor of the Central Bank of Luxembourg since the bank's formation in 1998. From 1989 to 1998, he was the Director of the Treasury of Luxembourg and a Personal Representative of the Minister of Finance during the negotiation of the Maastricht Treaty. He was elected Co-Chair of the Financial Stability Board's Regional Consultative Group for Europe from 2011-2012 and was also President of the Fondation de la Banque centrale du Luxembourg (BCL's Foundation) which promotes research and higher education in the BCL's fields of activity during 2011-12.

Endnotes

1. This article builds upon Mersch (2015).

2. For example, Andrade et al. (2015) show that forward guidance announcements coincided with an historical evolution of disagreement among professional forecasters on future short-term interest rates, inflation and consumption which implies that agents had different interpretation of the nature of such policy.

3. This effort took place within Eurosystem's Macro-prudential Research Network (MaRS); see https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_mars.en.html. MaRS' fundamental research sought to integrate characterizations of widespread financial instability into the macroeconomic models that central banks and other policy authorities use for analyzing economic developments. MaRs developed a series of theoretical and empirical models (see, e.g., Clerc et al. (2015)).

References

Acharya, V. and S. Steffen, (2015), "The "Greatest" Carry Trade Ever? Understanding Eurozone Bank Risks," *Journal of Financial Economics*, Volume 115, Issue 2, February, pp. 215–236.

Andrade, P.; G. Gaballo; E. Mengus and B. Mojon, (2015), "Forward Guidance and Heterogeneous Beliefs," Mimeo, Banque de France.

Angeloni, I. and E. Faia, (2013), "Capital Regulation and Monetary Policy with Fragile Banks," *Journal of Monetary Economics*, 60(3).

Basel Committee of Banking Supervision (BCBS), (2010), "An Assessment of the Long-term Economic Impact of Stronger Capital and Liquidity Requirements," August.

Bech, M.; L. Gambacorta and E. Kharroubi, (2012), "Monetary Policy in a Downturn: Are Financial Crises Special?" *BIS Working Papers,* No. 388, September.

Brzoza-Brzezina, M.; M. Kolasa and K. Makarski, (2013), "Macro-prudential Policy Instruments and Economic Imbalances in the Euro Area," Mimeo, National Bank of Poland.

Campbell, J.; C. Evans; J. Fisher and A. Justiniano, (2012), "Macroeconomic Effects of Federal Reserve Forward Guidance," *Brookings Papers on Economic Activity*, 44, pp. 1-80.

Claessens, S.; A. Kose and M. Terrones, (2008), "How Do Business and Financial Cycles Interact?" *IMF Working Paper,* No. WP/11/88.

Claessens, S.; A. Kose and M. Terrones, (2011), "What Happens During Recessions, Crunches and Busts?" *IMF Working Paper,* No. WP/08/274.

Clerc, L.; A. Derviz; C. Mendicino; S. Moyen; K. Nikolov; L. Stracca; J. Suarez and A. Vardoulakis, (2015), "Capital Regulation in a Macroeconomic Model with Three Layers of Default," *International Journal of Central Banking*, Vol. 11(3).

Cohen, B. and M. Scatigna, (2014), "Banks and Capital Requirements: Channels of Adjustment," *BIS Working Papers,* No. 443, March.

Eggertsson, G. and M. Woodford, (2003), "The Zero Bound on Interest Rates and Optimal Monetary Policy," *Brookings Papers on Economic Activity*, 34, pp. 139-235.

ESCB Heads of Research, (2014), "Report on the Macro-prudential Research Network (MaRS)," Available at: https://www.ecb.europa.eu/pub/pdf/other/macroprudentialresearchnetworkreport201406en.pdf?2a521ac0f9e68f344b92bacf35c91b70

Foster, L.; C. Grim and J. Haltiwanger, (2013), "Reallocation in the Great Recession: Cleansing or Not?" *US Census Bureau Center for Economic Studies Paper,* No. CES-WP-13-42.

Mersch, Y., (2015), "Speech at the Swedbank Economic Outlook Seminar," May.

Middeldorp, M., (2015), "Very Much Appreciated: ECB QE Had a Big Impact on Asset Prices, Even Before It Was Officially Announced," *Bank Underground*, Bank of England, August.

Schularick, M. and A. Taylor, (2012), "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-200," *American Economic Review*, 102, April, pp. 1029-1061.

Swansson, E. and J. Williams, (2014), "Measuring the Effect of the Zero Lower Bound on Medium- and Long-term Interest Rates," *American Economic Review*, 104, pp. 3155-85.