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POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

The interaction between monetary policy and macro-prudential policies: challenges faced by the ECB

IN-DEPTH ANALYSIS

Abstract

One of the main lessons from the global financial crisis is that price stability is not sufficient to guarantee financial stability. The mandate of monetary policy is to ensure price stability in the real economy, and doesn't include, and should not include, addressing potential instability in financial markets. Financial stability should be the remit of macro-prudential policy, with the objective of safeguarding the stability of the financial system and containing systemic risk. The ECB is very likely going to have to keep interest rates at zero for several years in order to fulfil its price stability mandate, and therefore it is critical its policy action is complemented by effective, pre-emptive and coordinated macro-prudential policies. However, the macro-prudential framework of the euro area is fragile, especially on the borrower side, and its legal basis should be strengthened, especially within the SSM area.

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AUTHOR

Angel UBIDE, Senior Fellow, Peterson Institute for International Economics.

RESPONSIBLE ADMINISTRATOR

Dario PATERNOSTER
Policy Department A: Economic and Scientific Policy
European Parliament
B-1047 Brussels
E-mail: Poldep-Economy-Science@ep.europa.eu

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ABOUT THE EDITOR

To contact the Policy Department or to subscribe to its monthly newsletter please write to: Poldep-Economy-Science@ep.europa.eu

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EXECUTIVE SUMMARY

One of the main lessons from the global financial crisis is that price stability is not sufficient to guarantee financial stability. The mandate of monetary policy is to ensure price stability in the real economy, and doesn't include, and should not include, addressing potential instability in financial markets. Financial stability should be the remit of macro-prudential policy, with the objective of safeguarding the stability of the financial system and containing systemic risk.

The ECB is very likely going to have to keep interest rates at zero for several years in order to fulfill its price stability mandate, and therefore it is critical its policy action is complemented by effective, preemptive and coordinated macro-prudential policies. However, the macro-prudential framework of the euro area is fragile, especially on the borrower side, and its legal basis should be strengthened, especially within the SSM area.

This could be achieved via both institutional change and legislative chance. On the institutional side, it would be important to harmonize the structure of macro-prudential institutions across the member states and to consolidate them into a European System of Macro Prudential Agencies (ESMPA). This would be composed of the national macro-prudential agencies plus the Single Supervisory Mechanism (SSM). Domestic macro-prudential decisions would remain the competence of the national agencies, but the SSM would have the legal ability to initiate actions should it deem it necessary. From a subsidiarity principle standpoint, failure to take decisive macro-prudential action in a particular country could have spillovers onto the rest of the member states – for example, by preventing the ECB to adopt the optimal monetary policy for fear of exacerbating financial stability risks in that particular country.

On the legal side, it would be important that the relevant macro prudential instruments are based on European law. This could be achieved by establishing a minimum set of borrower-based instruments in the European macro-prudential framework, mirroring the European standards for lender based instruments. One option would be to include it in the framework of the CRR/CRD IV (Capital Requirements Regulation (CRR)and Directive (CRD IV)).

As the euro area business cycle matures, the interaction between the ECB and the SSM, between monetary policy and supervisory policy, will become more relevant and, at times, potentially controversial. There are strong arguments to formally separate the two institutions, to avoid situations where controversy over the actions of one institution dents the credibility of the other. At the same time, there could be positive synergies in the close interaction of these institutions, especially at times of financial market turbulence. This is a debate that will require careful attention in the coming years.

1. INTRODUCTION: WHY MACRO PRUDENTIAL POLICY IS NEEDED

One of the main lessons from the global financial crisis is that price stability is not sufficient to guarantee financial stability. The so-called financial cycle and the business cycle can become out of synch, especially during periods of persistent structural change, and risks can emerge in the periods of "disconnect" between the two cycles. For example, in the run-up to the global financial crisis, imbalances were building-up in the housing and financial sectors while inflation was low and stable. At present, the prolonged period of low interest rates, necessary to restore price stability and sustainable growth, is causing some to worry about potential financial stability risks.

The mandate of monetary policy is to ensure price stability in the real economy, and doesn't include, and should not include, addressing potential instability in financial markets. Monetary policy has one mandate, price stability, and one instrument, the term structure of interest rates (influenced via a combination of changes in the short term interest rate, asset purchases, and liquidity operations). Financial stability should be the remit of macro-prudential policy, with the objective of safeguarding the stability of the financial system and containing systemic risk.

Therefore, macro-prudential policies aimed at addressing systemic risk are essential for an economy. Even more so if a country is part of a monetary union and thus the common monetary policy stance may not be optimal for the specific needs of some of its members, as it was clearly the case for some euro area countries prior to 2007.

Macro-prudential policy uses regulatory measures to deal with systemic financial risk which may originate from three types of sources: first, macroeconomic shocks that can make the financial sector vulnerable; second, contagion that may stem from default of a few financial institutions as a result of the growing interconnectedness within the system; finally, the development of endogenous financial imbalances associated with credit booms, excessive leverage, and risk taking by financial institutions.

A systemic approach is critical, because one of the lessons from the crisis was that a sound capital and liquidity situation at the level of individual institutions, as monitored by micro-supervision, does not guarantee the stability of the system as a whole. Systemic risk arises from the intrinsic excess procyclicality of the financial system and the complex interconnections across institutions.

In this context, macro-prudential policy has two main objectives: to enhance the resilience of the whole system and to smoothen the financial cycle. The instruments available for macro-prudential policy span the domain of lenders and borrowers, and include most of the micro-supervision instruments related to capital and liquidity when applied to the system as a whole, beyond the specific characteristics of individual exposures. They also extend to other categories, like limits to loan-to-value ratios (LTV) in housing credit, counter-cyclical capital buffers, global leverage ratios, or haircuts and margin requirements in securities' transactions or clearing activities.

There are several reasons why monetary policy cannot, and should not, be used to deal with financial instability in asset markets. Firstly, price stability and financial stability objectives can at times lead to contradictory policy needs, and monetary policy cannot abandon its publicly stated priorities. It would be highly controversial, for example (assuming it would be possible to fine tune such an experiment), to engineer a mini recession to cool down asset markets while inflation were in line with price stability, or to refrain from boosting economic activity as needed to achieve the inflation target in order to guard against perceived financial excesses. As the recent Swedish experience shows (see

the discussion below), the latter strategy could seriously endanger the price stability mandate of the central bank, and dent its credibility as a result. Secondly, it is higher unclear whether monetary policy, through its interest rate policy instrument, can effectively influence and target asset market prices. There is no theory or model establishing a reliable relationship between interest rates and asset price targets and, as Alan Greenspan famous "irrational exuberance" speech showed, verbal interventions have very limited, if at all, effectiveness. Thirdly, monetary policy simultaneously affects all sectors of the economy and it is therefore a very rough and ineffective tool to cope with specific imbalances in the financial sector. Fourth, it is essentially impossible to define an operational interest rate rule to deal with financial instability, given the very vague, imprecise and often contradictory evidence on the effects of interest on asset prices and of asset prices on economic activity. Finally, by independently addressing financial stability concerns, macro-prudential policy provides monetary policy with additional input for its decision and room for maneuver to better focus on ensuring price stability, thus enhancing the welfare of the economy.

2. MACRO PRUDENTIAL TOOLS

The first challenge for macro prudential policy is to identify the variables policy should aim to lean against, in order to reduce excess procylicality and interconnectedness. Standard variables include equity, interest rate, housing and credit markets, as integral components of the financial cycle. Among this, research shows that the most important driver of the financial cycle is credit flows into real estate. The correlation between mortgage credit flows and house prices is strongly self-reinforcing (see Favara, G., and J. Imbs, (2015))

Therefore, having the tools to address the credit-real estate link is critical for the success of macro-prudential policy. In addition to monitoring measures of valuation and activity in housing markets, there are conceptually two ways to manage the credit-real estate nexus: acting on the lender side, and acting on the borrower side.

Acting on the lending side involves imposing conditions on banks and other lending institutions that either enhance the resilience of the financial institutions in case of losses – capital based instruments – or in case of funding crises – liquidity based instruments. These conditions include capital buffers, sectoral risk weights, loan to deposit ratios, or loan to core funding ratios. The Basel Committee on Banking Supervision (BCBS (2010)) suggests that a 1 percentage point increase in capital requirements reduces the likelihood of a systemic crisis by 20-50 percent.

Acting on the borrower side involves imposing restrictions on borrowers that limit their risk taking and reduce their probability of default and loss given default. These restrictions include, among others, loan to value ratios, loan to income ratios, or debt service to income ratios.

It is important to stress that both sets of instruments are necessary. There are several potential problems with using only lending side instruments to smooth the financial cycle. First, capital-based measures tend to be focused on building resilience and are hence applied in a static way (with the exception, of course, of the counter-cyclical buffer). In addition, even if applied in a more dynamic fashion, such measures have only indirect and limited effects on the costs of loans and thus on mortgage lending growth, limiting their effectiveness in environments of optimistic expectations of house price appreciation. Finally, it is very unclear that lending side instruments would have any effectiveness during an asset price downturn. Lending side instrument are essentially ways to force banks to adopt a more conservative valuation of their balance sheet during boom times, something that markets could agree on. However, it would be very difficult to make a convincing case in favor of a more aggressive valuation during downturns, and to convince markets of it. There is therefore a certain degree of asymmetry in lending side instrument that could be very difficult to overcome.

Borrower side instruments are in general more effective in curtailing excessive credit growth via lower bank leverage and weaker asset growth during booms (see Cerutti, Claessens, and Laeven (2015)). Whenever possible, these indicators should be constructed as ratios to income, and not to prices, to prevent undesirable procyclicality. As the recent experience in the United States and Spain shows, during housing booms loan to value ratios will likely underestimate the true amount of leverage that borrowers are taking on. These indicators should be time varying in order to be effective and avoid procyclicality. An alternative to varying the ratios over time would be conduct borrower stress tests that incorporate interest rates, house price and employment uncertainty and speed of repayment.

Borrower side instruments should be applied based on activity (lending) rather than on institutional characteristics (bank vs non-bank) to minimize leakage. Institution based application can lead to leakage via cross border activities of branches and cross sector

activity of non-bank lending activities. These leakages are likely to be dynamic – financial markets will evolve as new regulations and policies are put in place – and therefore monitoring of coverage has to be continuous.

3. INTERNATIONAL EXPERIENCE WITH MACRO PRUDENTIAL POLICIES

One of the first adopters of macro-prudential policies was Spain, which started to apply dynamic provisioning in 2000. Dynamic provisions are forward-looking provisions that before any credit loss is individually identified on a specific loan build up a buffer of bank own funds from retained profits in good times that can be used in bad times to cover the realized losses. The buffer build up accordingly is counter-cyclical, because the required provisioning in good times is over and above specific average loan loss provisions, and in bad times there is a release of the buffer so that it helps to cover specific provision needs. The Spanish experience had three phases: (1) the introduction of dynamic provisioning in 2000, which entailed an additional non-zero provision requirement for most banks; (2) the modification in 2005, which implied a net modest loosening in provisioning requirements for most banks; and (3) the lowering of the floor of the dynamic provision funds in 2008 that allowed for a greater release of provisions (and hence a lower impact on the profit and loss of the additional specific provisions made in bad times).

The analysis of the Spanish experience shows that, even though dynamic provisioning wasn't the silver bullet that avoided an excessive housing boom (among other reasons because the lack of good historical evidence on long housing booms and busts made it very difficult to properly calibrate the program), it did mitigate bank procyclicality in credit supply. The dynamic buffers contracted credit availability in good times and expanded it in bad times. Jimenez, Ongena, Peydro and Saurina (2012) show that, during the recent crisis, credit grew by 19 percentage points more at banks with an average level of countercyclical provisions compared to banks with zero provisions.

Another important early adopter of macro-prudential policies has been Canada. Canada entered the crisis with a buoyant housing market, highly indebted households, and well capitalized banks. As the Bank of Canada drastically cut rates to 0.25 percent to offset the impact of the global financial crisis, the Canadian authorities reacted by tightening their macro-prudential stance to avoid an acceleration of the house price and household debt boom. Since 2008, the Canadian government undertook four rounds of measures to tighten mortgage lending standards. Key measures included reducing maximum amortization periods, imposing a minimum down payment, introducing maximum total debt service ratios, tightening LTV ratios, and withdrawing government insurance backing on lines of credit secured by homes. After some false starts, these measures have been effective and have moderated mortgage credit growth and house price inflation, allowing the Bank of Canada to focus on its inflation target. IMF estimates suggests that a one percentage point reduction in the LTV ratio lowered annual credit growth by 0.25 to 0.5 percentage points (see Krznar and Morsink (2014)).

Overall, the experience so far shows that macro-prudential tools have been used primarily to address risks in the real estate sector. Partly for this reason, the loan-to-value limit has been the most popular macro-prudential tool. Some jurisdictions have used multiple tools to help the effectiveness of the measures. For instance, Hong Kong SAR (Special Administrative Region) and Singapore have used the debt service–to-income (DSTI) ratio and taxes applied to real estate transactions along with the LTV ratio. Switzerland, Sweden and Hong Kong SAR also have imposed additional capital requirements for mortgages.

Macro-prudential policy has also been used to enhance the resilience of the banking system. Most of these measures were adopted in response to the global financial crisis. New Zealand, for instance, moved quite quickly and imposed gradually increasing liquidity requirements to contain bank funding risks. Sweden did the same in 2013, as its banks rely heavily on wholesale funding. Countercyclical capital buffers will take effect in Sweden late in 2015 and in Hong Kong SAR in phases beginning 2016. Furthermore, systemically

important institutions will have to hold additional capital buffers in Switzerland, Sweden, Hong Kong SAR and the Netherlands.

It is too early to gauge the full impact of the measures that have been undertaken. In addition, some measures will only take effect in the future, and their impact during the eventual downturn will be key for a wholesale evaluations. Nevertheless, there is some early evidence that the implementation of macro-prudential measures have enhanced banking system resilience and helped reduce the build-up of housing sector leverage in most cases. For instance, LTV ratios declined in Hong Kong SAR, New Zealand, and Singapore following the adoption of LTV limits. House prices growth was also affected. For example, the rate of growth of house prices peaked in New Zealand following the imposition of a cap on LTVs. House prices also levelled off in Hong Kong SAR under the combined weight of macro-prudential tools and taxes, with the taxes appearing to have a more immediate impact.

The experience of Sweden is a very good case study of the conflict between price stability and financial stability, and the risk of using monetary policy to address both rather than using macro-prudential policies. In recent years, Sweden's economy has experienced robust growth combined with still high unemployment and low inflation. At the same time, household debt has grown rapidly and house prices have remained buoyant. In response, as the Swedish FSA (Financial Supervisory Authority) was resisting repeated calls from the Riskbank for the adoption of macro-prudential policies, the Riksbank adopted a tighter monetary policy stance than purely macroeconomic considerations would have called for. De facto, near term inflation and unemployment goals became subordinated to reduce the risks to financial stability that stemmed from Sweden's high level of household debt. The outcome, partly driven by factors unrelated to the policy stance, such as the lack of pricing power experienced by Swedish firms competing in global markets and heavily exposed to the euro area, has been a very long period of below target inflation. Svensson (2015) has argued that the Riksbank's monetary policy actions induced a significantly higher rate of unemployment and a sustained shortfall of inflation relative to its target. Sweden's dilemma is not an isolated example; a similar set of issues has faced Norway's central bank, the Norges Bank.

The FSA finally yielded to the demands of the Riskbank and slowly started to implement macro-prudential policies, increasing risk weights for mortgages, introducing a countercyclical capital buffer, and studying the introduction of an amortization requirement for mortgages (most mortgages in Sweden are interest rate only). This allowed the Riksbank to reverse course in July 2014 and aggressively ease policy. Inflation expectations rebounded, suggesting a clear link between adherence to a financial stability mandate and inflation expectations. This is an important experiment warning of the potential long-run costs of losing sight of the price stability mandate. The credibility of the inflation target in most advanced economies has been a key factor in many central banks' ability to restore growth and avoid a deflationary outcome after the global financial crisis. If this credibility of the inflation target is damaged by an excessive focus on financial factors, it would wreak lasting damage to central banks' ability to manage the business cycle, at considerable cost to the economy.

The Swedish experience showcases that the costs of using monetary policy to address financial stability risks are clear and sizable while the potential benefits of such actions are at best uncertain, due to the difficulty inherent in analysing and measuring tail risks that could develop in the future and the lack of clarity of the causal impact of monetary policy on financial stability. Svensson (2015) argues that the Riksbank's policies may have actually increased the already high household debt-to-income ratio, via lower growth, thus exacerbating financial stability risks rather than mitigating them.

4. THE EURO AREA SITUATION – REGULATORY FRAMEWORK AND EXPERIENCES

At the European level, lender based measures are based on the CRR/CRDIV legislation and includes measures such as the Countercyclical Capital Buffer, the Systemic Risk Buffer and capital add-ons for systemically important institutions. It also includes large exposure limits and sectoral risk weights which can be applied to banks' exposures to the residential and commercial property sectors. Borrower based measures, however, remain at the discretion of the national authorities, therefore raising issues of coordination in content, timing and modalities of implementation across countries. In some countries borrower-based measures are codified in the context of financial stability, while in others they fall under consumer protection law. Heterogeneity also extends to the competent authorities for implementing the measures. In some countries it is the central government, in others it is the central bank, and in still others authority is in the hands of a committee that involves different national bodies. This requires coordination among different types of institutions with different mandates and time horizons which can easily lead to an inaction bias. In addition, this heterogeneity across countries and institutions creates a clear risk of regulatory leakages, across countries and financial institutions, something very relevant for the real estate sector. Overall, the effectiveness of the current European macro-prudential framework is rather limited. The ESRB (European Systemic Risk Board) can issue recommendations that operate through a comply-or-explain mechanism, but this capacity has not been used to date. In euro area countries participating in the SSM, the ECB could also play a coordinating role.

The recent experience with macro-prudential instruments in the euro area is limited. On the lender side, the Netherlands has led the process by introducing systemic risk buffers in mid-2014, and similar measures have been implemented in Estonia, Denmark, and Austria. On the borrower side, Estonia has introduced limits on LTV, DSTI and maturity restriction requirements for commercial banks issuing housing loans. Ireland has place ceilings on the proportion of mortgage lending with a high LTV and LTI ratios. The Netherlands has introduced a gradual tightening of LTV caps, reducing them by 1 percentage point per year until LTVs reach 90 percent in 2028. Slovakia has gradually tightened the share of loans with high LTV ratios and introduced recommendation on maximum maturity and requirement for income verification and internal borrower repayment assessment for banks. Lithuania introduced a Responsible Lending Regulation in 2011 and has recently made its DSTI legislation more sensitive to the financial cycle by requiring credit institutions to check whether customers would be financially able to withstand future increases in interest rates, while also reducing the maximum maturity of credit.

5. CONCLUSION: WHAT NEEDS TO BE DONE

The ECB is very likely going to have to keep interest rates at zero for several years in order to fulfil its price stability mandate (see the discussion in Ubide (2014)), and therefore it is critical that potential risks from housing and credit markets are addressed in an effective, preemptive and coordinated manner with sound macro-prudential policies. However, the macro-prudential framework of the euro area is fragile, especially on the borrower side, and its legal basis should be strengthened, especially within the SSM area.

This could be achieved via both institutional change and legislative chance. On the institutional side, it would be important to harmonize the structure of macro-prudential institutions across the member states and to consolidate them into a European System of Macro Prudential Agencies (ESMPA). This would be composed of the national macro-prudential agencies plus the SSM. Domestic macro-prudential decisions would remain the competence of the national agencies, but the SSM would have the legal ability to initiate actions should it deem it necessary. From a subsidiarity principle standpoint, failure to take decisive macro-prudential action in a particular country could have spillovers onto the rest of the member states – for example, by preventing the ECB to adopt the optimal monetary policy for fear of exacerbating financial stability risks in that particular country.

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