# Vítor Constâncio: Macroprudential policy in Europe – ensuring financial stability in a banking union

Keynote speech by Mr Vítor Constâncio, Vice-President of the European Central Bank, at the Financial Stability Conference, Berlin, 28 October 2015.

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## Summary

When the business cycle and the financial cycles are disconnected, monetary policy must remain anchored to its goal of ensuring price stability in the markets of goods and services. It cannot address instability in asset markets or broader financial stability risks. This is the task of macroprudential policy. Its objective is to contain systemic risk in the financial system. The role of macroprudential policy is all the more relevant in a monetary union, where economic and financial conditions may significantly differ across member states. With its granular and targeted instruments, macroprudential policy provides the most appropriate tool for staving off financial stability risks in the specific areas where they arise, being it at the level of a country, a sector or a financial institution. An effective conduct of macroprudential policy can therefore help monetary policy to remain focussed on fulfilling its price stability mandate.

The last two years have shown that macroprudential policy in Europe is already active. The implemented national macroprudential policies since the start of the CRR/CRD IV are especially focussed on structurally strengthening the banking system. In addition, the adoption of borrower-based instruments, such as loan-to-value (LTV), loan-to-income (LTI) or debt service-to-income (DSTI) by national authorities indicates that they are useful instruments in the European environment to curtail excessive credit and house price growth by acting directly on borrower's conditions.

Going forward, we need to complete the macroprudential toolkit in the hands of European authorities to enhance consistency and policy co-ordination and to enable them to address financial stability risks emerging outside the banking system. This will be a key step to accompany further European market integration and the creation of a true Capital Markets Union.

Ladies and Gentlemen,

For more than two years now annual euro area HICP inflation has been below 2%, and for some time significantly so. Together with subdued economic growth, the low inflation rates reflect a continued sluggish recovery in the aftermath of the global financial crisis. Numerous reasons can be considered as root causes for this dismal performance. Next to recent declines in oil prices, the combination of low inflation and low growth essentially points to a lack of demand holding back the recovery.

There are several reasons why excessively low inflation generates relevant risks for the economy. First, with monetary policy rates at their lower bound, lower inflation rates imply higher *real* interest rates; in particular the real interest rate may end up above the equilibrium value needed to match savings and investment at the full employment level. Second, very low inflation may lead to an un-anchoring of inflation expectations. This would imply second-round effects on price and wage setting protracting the subdued price developments into the future. Third, low inflation increases the debt burden of borrowers, obstructing the needed balance sheet adjustment of highly indebted households, firms and governments. Fourth, should a generalised deflation pressure prevail, nominal rigidities in the economy, and particularly in labour markets, could inhibit the needed relative price adjustments. Finally, all empirical studies show that there is a positive measurement bias in the measurement of price developments, which implies that a zero inflation rate would mask actually declining prices.

For all these reasons the ECB has decided a quantitative objective with an inflation rate for the euro area of below but close to 2%. This objective guarantees an appropriate buffer to counter the above-mentioned drawbacks of very low inflation or even deflationary tendencies.<sup>1</sup>

In order to bring inflation rates closer to the stated objective of price stability over the medium-term, and in order to support the aggregate recovery our monetary policy is continuing its accommodative stance. Our main policy rates will stay low for a prolonged period of time, in line with our forward guidance and the asset purchase programmes will keep our balance sheet expanding until we see a sustained adjustment in the path of inflation. Moreover, in the past months, downside risks to the global economy have increased, due notably to the increasing weakness in emerging markets. As indicated at last week's Governing Council meeting, the ECB is closely monitoring these developments and stands ready to act with all available instruments to deliver on its mandate.

How does this situation, and in particular the monetary policy stance, relate to the situation in financial markets and the risks to financial stability? Are we creating, as some observers claim, the conditions for new instability going forward? And, should our monetary policy stance change route to counter those risks?

To answer these questions let me start by underlining that the ECB action is the necessary response to very serious macroeconomic shocks and challenges to our economy. If these are left unaddressed they bear the risk in further disruptive developments – ultimately also bringing instability in financial markets. Our policy has been key to greatly improve credit conditions for households and firms over the past two years. Evidence also clearly indicates that the recovery in domestic demand is becoming more broadly based. By creating the conditions for price stability and a sustained recovery, the ECB is also providing a fundamental contribution to financial stability.

More generally, it would be a mistake to divert monetary policy from its objective of maintaining price stability to more directly address asset price misalignments and financial stability risks. The business cycle and the financial cycle are not necessarily synchronised. The financial cycle tends to have larger amplitude and lower frequency than the normal business cycle. This implies that long periods of "disconnect" between the two cycles can materialise.<sup>2</sup>

In the past, the separation between the two was not considered likely. In particular, it was thought that price stability in the market of goods and services would be sufficient to guarantee financial stability in the market for assets. The present situation, and the period of the so-called Great Moderation ahead of the crisis, should be sufficient to dispel such traditional concepts. Before the crisis, while inflation was low and stable, significant financial imbalances were building up as the relatively deregulated financial system engineered a credit boom and a highly risky leverage situation. Likewise, at present, the very low inflation and subdued growth environment is accompanied by some froth in financial asset markets resulting from "search for yield" in an environment of low interest rates.

This "disconnect" between the financial and the business cycle creates a dilemma to traditional macro-economic policy and especially to monetary policy. The main remit of monetary policy refers to the relevant variables of the business cycle: inflation in the market of goods and services and the level of real economic activity. Real economic activity is

<sup>&</sup>lt;sup>1</sup> See "The ECB's monetary policy strategy", press release 8 May 2003, including O. Issing (eds.), "Background Studies for the ECB's Evaluation of its Monetary Policy Strategy", November 2003.

<sup>&</sup>lt;sup>2</sup> See Drehmann M., C. Borio and K. Tsatsaronis (2012), "Characterising the financial cycle: don't lose sight of the medium term!" *BIS Working Paper No. 380*. Hiebert, P., Y. S. Schüler and T. A. Peltonen (2015), "Characterising the financial cycle: a multivariate and time-varying approach", ECB *Working Paper Series No. 1846*.

*directly* considered by central banks with a dual mandate, like the U.S. Fed. It is considered *indirectly* by central banks with a hierarchical mandate, like the one of the ECB. More generally, though, no central bank has objectives explicitly referred to asset prices in its mandate.

There are different reasons why monetary policy cannot, and should not, be used to deal with financial instability in asset markets. One relates to the fact that the monetary policy objective may require an expansionary stance when asset markets would require restrictive measures, reflecting different positions in the business and financial cycle.<sup>3</sup> A second argument questions whether monetary policy, through its main policy instrument – the short term interest rates – can effectively target asset market prices.<sup>4</sup> Finally, monetary policy affects all sectors simultaneously and is therefore a too blunt or even an ineffective tool to cope with specific imbalances in the financial sector.

All these reasons imply that monetary policy needs to be complemented by an additional policy, with a differentiated set of instruments, in order to ensure financial stability. This is the remit of macroprudential policy. Indeed, after the crisis, there has been a trend to attribute an explicit goal of financial stability to central banks. In order to fulfil this objective, central banks have to be entrusted with a new set of granular tools of a macroprudential nature that can be applied to the financial system as a whole.

Macroprudential policy has two main objectives: enhancing the resilience of financial institutions and the whole financial system and, second, smoothening the financial cycle as captured by the fluctuations in credit, leverage and asset prices which may else lead to boom-bust episodes. The instruments available for macroprudential policy include most of the micro-supervision instruments related to capital and liquidity requirements when applied to counter systemic risks related. But they extend also to other categories, like limits to loan-to-value ratios in housing credit, counter-cyclical capital buffers, global leverage ratios, or haircuts and margin requirements in securities' transactions or clearing activities.

Macroprudential policy is essential in any economy to complement monetary policy as the business and financial cycles are not synchronised. This is all the more important in a monetary union, where economic and financial conditions across member states can differ significantly. With more granular and targeted instruments, macroprudential policy can address financial stability risks in the specific areas where they arise, being it at the level of a country, a sector or a financial institution. In a nutshell, macroprudential policy can unburden monetary policy to fulfil its price stability mandate.

In Europe, the macroprudential policy framework is in place since the adoption of the CRR/CRDIV legislative package. With the start of the SSM in November last year, the ECB received macroprudential powers, which it shares with national authorities in the euro area. The toolkit is centered on the banking system and includes capital- and liquidity-based measures. Some of the instruments, notably the countercyclical capital buffer, can be used to contain the pro-cyclicality inherent in financial developments at the root of the damaging boom and bust episodes we have experienced in the past.

#### The current macroprudential assessment and action in the euro area

While monetary policy needs to continue its course to fulfil its price stability mandate and sustain the recovery, it is key for macroprudential policy to assess the consequences that the

<sup>&</sup>lt;sup>3</sup> As Mervyn King once stated, it would be highly controversial if a restrictive central bank policy adopted for reasons of asset market risks would create "mini-recessions" in real activity and unemployment, when the level of inflation would be compliant with the defined and publicly-known target.

<sup>&</sup>lt;sup>4</sup> See D. Kohn (2006), "Monetary policy and asset prices" speech at a European Central Bank Colloquium, 16 March 2006, http://www.federalreserve.gov/newsevents/speech/kohn20060316a.htm.

globally low interest rate environment and ample liquidity may have for financial stability. The goal of our current monetary policy stance is to incentivise economic risk taking, in the form of better financing conditions for households and firms. We are, of course, very much aware that side effects are also possible, in particular in the form of excessive asset valuations or excessive risk-taking by market operators. For example, the ECB's asset purchase programme directly affects the price of purchased bonds and the portfolio rebalancing effects indirectly influence also many other asset markets, such as investment grade bonds, equities, real estate or foreign assets.

We are following these developments very closely, notably in relation to risks posed by asset valuations and the search for yield phenomenon. Our assessment at present is that there is no sign of a general asset market overvaluation in the euro area.

Euro area equity prices are still recovering from the summer turmoil. Prior to that, they had been fairly valued with a price-earnings ratio well below the values seen in the US. In the corporate bond markets, the increase in credit risk premia observed in the past few months has eased overvaluation concerns somewhat, with corporate spreads moving closer to their long-run averages. When examining excess bond premia, standard valuation models for euro area non-financial corporations point to fairly valued, or even slightly under-priced, corporate bond market valuations. Term premia in sovereign bond markets are somewhat stretched, but this is a direct and desired consequence of the monetary policy action. As for the real estate market, the situation is quite differentiated across member states. There are growing signs that the recovery in property prices is becoming more broad-based across countries. In general, there is no evidence of generalised overvaluations, although some local developments warrant close monitoring.

This situation in euro area asset markets couples with a still subdued credit cycle. While credit to the real economy is certainly recovering, all countries experience cyclical real credit growth rates below their long-term average. Estimates of the credit-to-GDP gap, a measure of the deviation of credit from its longer run norm are negative for nearly all euro area countries and are below 10% in most euro area countries. In other words, we are still far away from a situation of excessive credit growth and asset price misalignments – very different from a credit-driven asset price boom, which has preceded many financial crises of the past.

The implication of this state of affairs is that at the moment, we do not see a need to implement broadly based area-wide countercyclical macroprudential policies, such as the countercyclical capital buffers. This is not to say, however, that selective measures to tackle risks emerging in specific parts of the financial system should not be taken.

Indeed, dozens of actions in the macroprudential field have already been taken by euro area countries, to increase the resilience of the banking system and to prevent the emergence of possible imbalances, in particular in the real estate sector.

Within the first category – to raise resilience – macroprudential action has especially contributed to strengthening bank capital positions. Capital ratios of significant banking groups have already markedly increased from a median common equity Tier 1 (CET1) capital ratio of 7% in 2008 to 12.8% at the end of 2014. This strengthening has been spurred by the preparations for the Single Supervisory Mechanism and the conduct of the Asset Quality Review last year.

In addition, a number of macroprudential authorities in the euro area have activated three types of capital buffers: the buffer for global systemically important institutions (G-SIIs), the one for other systemically important institutions (O-SIIs) and the systemic risk buffer (SRB). Such buffers are intended to address the problems stemming from too-big-to-fail institutions, large, concentrated and interconnected banking sectors, as well as specific structural risks deriving for instance from exposures to areas affected by geopolitical tensions.

As for the G-SII buffers, seven globally systemic banks from four euro area countries have been identified.<sup>5</sup> National authorities have overall also identified thirteen other systemically important banks building on the EBA guidelines.<sup>6</sup> These are five for Slovakia, four for the Netherlands and four for Finland. Other countries will announce their global and other systemically important banks soon and capital buffers will gradually be phased in. In addition, Estonia and the Netherlands have already adopted systemic risk buffers to counter those risks emerging from groups of banks with similar business models.

These three capital buffers address risks linked to the structural features of the banking system. They raise resilience and are applied in a static way. Countercyclical capital buffers and dynamic loan provisioning, instead, can address cyclical features by increasing capital requirements when systemic risks build up.<sup>7</sup> Until now, no SSM country has adopted positive countercyclical capital buffers given the prevailing subdued position in the credit cycle. But should stronger credit growth imply excessive risk-taking, the cyclical buffers are fully implementable in all SSM countries starting in 2016 to mitigate the upturn of a credit-driven financial cycle.

In the second category, covering measures to address potential imbalances in the real estate sector, there have also been a number of initiatives. As mentioned, valuation metrics suggest that prices are generally still in line with fundamentals. Estimates for the euro area as a whole show that residential property prices are slightly below the average valuations of the last 20 years; commercial real estate prices, instead, display some signs of overvaluation. But dispersion is substantial around these average estimates.

Given the indirect transmission of capital-based measures to lending conditions, authorities are relying on borrower-based instruments, such as loan-to-value (LTV), loan-to-income (LTI) or debt service-to-income (DSTI) to address risk-taking and overvaluation more specifically. Such instruments act more directly on borrower's conditions to curtail excessive credit growth.<sup>8</sup> Eight SSM countries have already adopted these instruments, especially to counter potential risks of low interest rates for the real estate market. What is more, in order to exploit complementarities between three individual borrower-based measures, the authorities in Estonia and Lithuania have implemented jointly explicit limits on loan-to-value ratios, income-based ratios and loan maturity.

The initial evidence indicates that these policies can be highly effective. For example in the case of Ireland, where at the beginning of 2015 the Central Bank introduced a loan-to-value

<sup>&</sup>lt;sup>5</sup> The EU G-SII identification follows the methodology of the Basel Committee on Banking Supervision (BCBS) "The G-SIB assessment methodology – score calculation", November 2014. It is expected that the full list of G-SII notifications to the ECB will be consistent with the one identified by the FSB. The having designated the global systemically important institutions are France (BNP Paribas, Groupe BPCE, Crédit Agricole Group, Société Générale), Germany (Deutsche Bank), Italy (UniCredit), and the Netherlands (ING Bank).

<sup>&</sup>lt;sup>6</sup> "Guidelines On the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)", European Banking Authority, 16 December 2014.

<sup>&</sup>lt;sup>7</sup> With the benefit of hindsight, the experience with dynamic provisioning in Spain indicates that increases in capital buffers building up capital buffers before a crisis is superior in terms of maintaining real activity and avoiding risk-shifting t as found by Jiménez, G., S. Ongena, J.-L. Peydró and J. Saurina "Macroprudential Policy, Countercyclical Bank Capital Buffers and Credit Supply: Evidence from the Spanish Dynamic Provisioning Experiments," *Journal of Political Economy* (forthcoming).

<sup>&</sup>lt;sup>8</sup> Kuttner, K. and I. Shim, (2013), "Can Non-Interest Rate Policies Stabilize Housing Markets? Evidence from a Panel of 57 Economies," *NBER WP 19723*, conclude that changes in the maximum debt-service-to-income had the largest and most robust effects on housing credit growth and that frictions targeting specific characteristics of loans have larger effects on credit growth than those oriented towards bank capital. Similar conclusions have been made by Crowe, C. W., D. Igan, G. Dell'Ariccia, and P. Rabanal (2011), "How to Deal with Real Estate Booms", *IMF Staff Discussion Note 11/02* and Cerutti, E., S. Claessens, and L. Laeven (2015), "The Use and Effectiveness of Macroprudential Policies: New Evidence", *IMF Working Paper 15/61*.

limit of 80% on *principal dwelling houses* and a limit on loan-to-income of 3.5 times relative to gross income, house prices have been decelerating from very high rates.<sup>9</sup> In Belgium, a slowdown in house price growth has also been observed after the introduction of add-ons in risk weights for mortgage lending.

It is important that appropriate tools are available for authorities to contain the build-up of potential imbalances in real estate markets. In this respect, we very much welcome the recommendation by the German Financial Stability Committee in June to create minimum standards for residential real-estate loans such as minimum capital requirements and minimum debt repayment rates by the end of March 2016. At the same time, we concur with the Committee's assessment that there are no signs to use them at the current stage. Still, we encourage further work on the legislation for loan-to-value and debt-to-income ratios to be included it in the macroprudential toolkit.<sup>10</sup>

Other countries have also prepared prudential measures, especially to strengthen the regulatory toolkit in a low interest rate environment. These measures are strongly driven by systemic risk considerations. For example, authorities in Ireland, Lithuania, Slovakia and Germany are now recommending interest rate sensitivity tests for newly contracted mortgages in order to raise the resilience of mortgage borrowing to interest rate risk. The low interest rate environment has led some countries to recommend caps on bank deposit rates or caps on guaranteed benefit schemes of insurance contracts. These are important to safeguard the resilience of the financial sector. The National Bank in Belgium also expects that pay-outs to bank and insurance shareholders are limited when deemed necessary to enhance their solvency position and to sustain their long-term resilience.

These examples show that macroprudential considerations lead to policy decisions through a broad range of instruments and with varying legal powers ranging from moral suasion over recommendations to provisions with clear sanctions.

It is of course too early to fully assess these experiences. Macroprudential policy in the euro area is still in its infancy and we need to fully understand the effects and the interactions among the different instruments. Substantial analytical and empirical work is needed to place the macroprudential authorities into a position to use the available instruments in the most effective way. At the same time, it is fair to say that macroprudential policies are already contributing to creating a safer financial environment in the euro area. Going forward, macroprudential policy can represent a key building block for high and sustainable economic growth in the euro area. In order to reap all benefits of an effective macroprudential policy, however, the macroprudential policy framework needs to be completed.

# Completing the macroprudential toolkit

There are at least two important directions to follow to complete the macroprudential toolkit.

First, we need to further enhance the European authorities' ability to intervene in a timely and efficient manner with macroprudential action. This entails, first of all, to strengthen the coordination role of central authorities to ensure full consistency and to account for possible spillover effects of macroprudential policies. It also requires expanding the toolkit at the EU level. Some instruments that are available for national macroprudential authorities are not present in the CRR/CRD IV and are thus not part of the ECB macroprudential toolkit. They are primarily borrower-based measures, such as caps on LTV, LTI or DSTI, which have however proven to be rather effective, and should be included as in the revised CRR/CRDIV.

<sup>&</sup>lt;sup>9</sup> For details on the implemented measures see Press release by the Central Bank of Ireland, 27 January 2015 "Central Bank announces new regulations on residential mortgage lending".

<sup>&</sup>lt;sup>10</sup> See "Recommendation of 30 June 2015 on new instruments for regulating loans for the construction or purchase of residential real estate" by the German Financial Stability Committee.

Specific limits on exposures to shadow banks should be considered and the scope of sectoral risk weights (currently available for real estate and intra financial sector exposures) could be extended to other exposure classes, so that macroprudential authorities can address risks emerging in specific sectors in a targeted manner. Furthermore, a time-varying dimension for both the leverage ratio (LR) and the net stable funding ratio (NSFR) – that will become part of the toolkit as soon as introduced – could be considered. Finally, it is necessary to simplify the current cumbersome notification and approval procedures in order to allow macroprudential authorities to act in a flexible and timely manner.

Another issue relates to the need to expand our macroprudential toolkit beyond the banking sector to also cover risks among non-banks and the financial markets as a whole.

In recent years, financial activity and the financing of the economy has been increasingly shifting to financial institutions beyond banks. For example, the investment fund sector has been growing strongly, both because of surging inflows and rising asset prices. As of the first quarter of this year, investment funds in the euro area are providing  $\in 1.3$  trillion in credit to financial firms,  $\in 1$  trillion to governments, and more than  $\in 300$  billion to non-financial firms in the euro area. They also invested in equities and other non-financial assets, including real estate, both within the euro area and outside. The non-euro area assets make up about 40% of investment funds balance sheets. In short, investment funds have an increasingly important role in funding the euro area domestic economy and for channelling investments abroad.

I see great benefits in broadening the funding base of the European economy, where marketbased financing complements the traditional banking system. Market-based financing can be seen as a spare-tire which helps satisfy demands for financing of the real economy, especially in times of sizeable deleveraging pressures in the banking sector. Moreover, by spreading financial risk outside the banking sector and on a larger number of market participants, such development may also be seen as reinforcing the overall resilience of the financial sector. The Capital Markets Union initiative in the EU will help promote these valuable functions of market-based financing.

However, such a process also entails a transference of risk from more regulated to less regulated institutions and activities. Indeed, part of the shifting of activities outside the banking sector is likely stemming from a reaction to the regulatory action on banks. To avoid that the increase in market-based financing becomes a serious source of systemic risk, macroprudential regulation also needs to apply to the non-banking sector.

The need for macroprudential regulation of certain financial market activities becomes clear if we consider that banks and non-banks are closely tied through market-based intermediation activities. These include a broad array of services related to securitisation transactions, securities financing transactions, repos, collateral management and derivatives – allowing for risk transformation and exchange via swaps and other instruments.<sup>11</sup> These activities can be conducted by regulated banks or by other less regulated institutions, but most of these activities escape the monetary statistics and the flow-of-funds accounts – they can, therefore, hardly be monitored, which is why they are called shadow banking activities. But risks of regulatory arbitrage are sizeable, as many of the activities can be conducted by different types of institutions subject to diverse regulatory regimes. Additionally, the more effective we are in using macroprudential tools for banks, the more likely activities spill over into the less regulated sector.

<sup>&</sup>lt;sup>11</sup> These instruments represent an important share of financial assets. According to estimates by the European Securities and Markets Authority (ESMA) aggregate European ABCP, ABS, repo, securities lending and MMFS is totalling more than EUR 8tn, which represents 19% of bank liabilities. The largest part thereof is the repo market with an estimated size of EUR 6tn.

Past experience has indeed shown that financial conditions can easily spill-over from one part of the financial system to the other. To give an example, before the global crisis, the markets for money-like claims were boosted by the emergence of very sizeable cash pools as these could possibly not find safety in banks' insured deposits. According to the academic literature, collateral markets, such as repo and derivative margins, played a decisive role in these developments,<sup>12</sup> where the role of bankruptcy privileges is noted as a key feature of the secured funding model.<sup>13</sup> Such markets can be of concern from a macroprudential perspective, especially if they are contributing to the financial cycle or if they create additional risks. Recent analytical studies – largely based on empirical studies on US markets –suggest that repo and securities lending markets were indeed inherently procyclical and may have amplified liquidity problems during the global financial crisis.

Macroprudential regulation must therefore not stop at the boundary of banks, as it would risk that exuberant financial conditions or potential distress easily spill over from one market to the other. Instead, macroprudential policy should have a complete toolkit available to adjust prudential requirements in a countercyclical manner across a broad range of financing activities.

In this respect, the macroprudential framework needs to evolve in three key aspects to effectively reach beyond the banking sector.

First, we need to close remaining data gaps and to broaden the information-base of financial market activities. Without detailed information, macroprudential policy cannot be enforced. One of the challenges faced is to consolidate and aggregate data from various sources. Furthermore, opacity remains a concern for statistics on aggregate liquidity or leverage of investment funds. An aspect of particular concern refers to the measurement of synthetic leverage build-up mostly with over-the-counter-derivatives, data which are not collected systematically or in a harmonised fashion.

Second, we need to develop tools targeting liquidity in non-bank financial institutions and ensure that leverage remains within acceptable limits. Asset-liability structures vary substantially across non-bank institutions, so a one-size-fits-all approach is clearly not appropriate. Take the example of open-ended investment funds, in which case equity is redeemable at short notice, creating the possibility of disturbing liquidity pressures. If we are to deploy macroprudential tools effectively beyond the banking sector, the competent supervisors need a clearer picture of the resilience of individual institutions and the entire financial system. To assess resilience, guided stress-tests at institutional and system level need to be developed, in line with recommendations by the FSB.<sup>14</sup>

Third, we need to tailor specific rules and tools for financing activities at the juncture between banking and non-bank financial intermediation. To dampen procyclicality in securities financing and derivatives markets, macroprudential authorities should be given the power to change haircuts at transaction level in a time-varying manner. At the same time, Central Counterparties need to have their own margining policies in place, that adequately address the risks stemming from specific trading behaviours and counterparty risk in times of stress.<sup>15</sup>

<sup>&</sup>lt;sup>12</sup> Poszar, Z., "Shadow Banking: The Money View", OFR Working Papers No. 14–04, Office of Financial Research, 2 July 2014. Claessens, S., Z. Pozsar,; L. Ratnovski, and M. Singh, "Shadow Banking: Economics and Policy", IMF Staff Discussion Notes No. 12/12.

<sup>&</sup>lt;sup>13</sup> Perotti, E., "The roots of shadow banking"; *CEPR Policy Insight*, No. 69.

<sup>&</sup>lt;sup>14</sup> Meeting of the Financial Stability Board in London on 25 September 2015: http://www.financialstabilityboard.org/2015/09/meeting-of-the-financial-stability-board-in-london-on-25september/.

<sup>&</sup>lt;sup>15</sup> An example of research analysing the implications of risks in times of stress is Menkveld, A.J. (2015) "Crowded Trades: An Overlooked Systemic Risk for Central Clearing Counterparties".

For all the above-mentioned aspects I am confident that the review of the EU macroprudential framework, recently announced by the Commission, will provide the opportunity for a significant enhancement of the regulatory context.<sup>16</sup>

## Conclusions

Let me conclude.

A complete and well-functioning macroprudential policy framework is essential for future integration in Europe. It can complement the action of the single monetary policy and contribute to high and sustainable economic growth in the monetary union. Recent experience shows that macroprudential policy in the euro area is already active. Going forward, we need to complete the toolkit in the hands of European authorities to enhance coordination, reduce spill-overs and to prepare for the Capital Markets Union.

Macroprudential policies are crucial to cope with systemic risk and endogenous cycles in the financial sector. They are particularly important in the euro area at the current juncture, as the global environment of low interest rates and the rise in shadow banking activities exposes the financial sector to increased risks.

Macroprudential and monetary policy rely on separate tools and aim at achieving different objectives. Yet, they need to be co-ordinated, which is a non-trivial task given that financial and business cycles can be de-synchronised. For these reasons, as I have already highlighted, appropriate macroprudential policy instruments must be at the disposal of central banks. If effective macroprudential measures are not made available, advanced economies will be more vulnerable to financial crises that could be avoided or mitigated if only we would heed to the lessons of recent history.

Thank you for your attention.

<sup>&</sup>lt;sup>16</sup> Jonathan Hill: "Capital Markets Union: an Action Plan to boost business funding and investment financing", 30 September 2015.