"Central Bank Independence Revisited in the Era of Unconventional Monetary Policy"

Speech by

Professor John (Iannis) Mourmouras

Deputy Governor, Bank of Greece

Former Finance Minister

at the SEACEN[1] - OMFIF Joint Policy Summit entitled

"Financial stability in an uncertain global environment"*

Sasana Kijang, Bank Negara Malaysia

Kuala Lumpur, Malaysia

Wednesday, 23 November 2016

Ladies and Gentlemen,

It is a great honour for me to be back to this part of the world. It's certainly warmer over here! I would like to thank the organisers for inviting me to give a speech at this Joint Policy Summit on a topic that I have been revisiting lately, that of central bank independence. My earlier research on the subject goes back 20 plus years.

My speech today revolves one single important question: if and how the concept of an independent central bank has been challenged, or perhaps even undermined, in an era of unconventional monetary policies, including their own exit strategies.

Quite a few examples come to mind, especially looking at the latest developments. US President-elect Donald Trump criticised Fed Chair Janet Yellen for the Fed's policy of low interest rates. In particular, the Fed has been accused of bias by President-elect Trump. British Prime Minister Theresa May came openly against the Bank of England's policy under Governor Mark Carney saying that low interest rates deprive savers of interest income. Also, Germany's "five wise men" (Council of Economic Experts) and German Finance Minister Wolfgang Schäuble criticised ECB President Mario Draghi for his negative interest rate policy. Against this background, the ultimate question is quite straightforward: is central bank independence sufficient for price stability when the tail risk of deflation is visible and unconventional monetary policies last too long? Opinions differ on this and I will give you my own view on this question in a minute, but before that let me make my view clear that

[1] The South East Asian Central Banks Research and Training Centre.

* Disclaimer: Views expressed in this speech are personal views and do not necessarily reflect those of the institutions I am affiliated with.

central bank independence is a necessary condition for price stability both in terms of mitigating a political business cycle, but also in terms of reducing the inflationary bias inherent in monetary policy.

Central bank independence: theory

The intellectual roots of central bank independence (or CBI) can be traced back to the rational expectations revolution, pioneered by the Chicago School in the 1970s. Rational expectations played a vital role in breaking the intellectual deadlock in the effort to address the stagflation phenomenon of the 1970s. With regard to monetary policy, seminal work by Kydland and Prescott (1977) and Barro and Gordon (1983) showed that under discretionary monetary policy the interaction of rational private agents with an equally rational government optimising a non-linear loss function whose arguments are deviations of inflation and output from socially desired target-levels, generates a Nash equilibrium involving an inflation bias whose size increases with the degree of output-gap aversion and which does not entail any sustainable output gains.

To address the problem of inflation bias, monetary policy should be conducted under a technology of credible commitment to low future inflation rates so that private inflation expectations are anchored to equally low levels. Initially, this commitment took the form of intermediate policy targets, such as targets for money supply growth, introduced in the early 1980s by the Reagan and Thatcher governments in the US and the UK respectively; or exchange rate targets implemented, among others, by European countries in the context of the European Monetary System. Intermediate targets were successful in lowering inflation in major industrialised economies, thus introducing the Great Moderation era. However, the instability of money demand and the opaqueness of money supply targets rendered the latter's implementation operationally difficult (see Mourmouras and Arghyrou, 2000). On the other hand, exchange rate targets rarely stood the test of time, thus preserving questions of credibility, as demonstrated by the literature on currency crises (see Obstfeld, 1996).

CBI, along with the introduction of inflation targeting, was largely the profession's response to the shortcomings of intermediate targets. Specifically, delegating monetary policy to an independent central bank, with a formal mandate to achieve price stability and granting discretion in the choice of instruments necessary to meet this objective, reduces the inflation-bias problem as a result of the central banker's objective function including an inflation-aversion parameter higher than the government's. Theoretically, this inflation gain may come at the cost of higher output volatility (see Rogoff, 1995). Empirical evidence, however, (see

e.g. Alesina and Summers, 1993 and Cuckierman, 2008) suggests that CBI may operate as free-lunch, in the sense that it involves an obvious gain without causing an equally obvious loss. Empirical measures of central bank independence are found to be negatively correlated with the first and second moment of inflation, showing little, if any, correlation with output variability. Furthermore, CBI can be beneficial in ensuring sustainable public debt dynamics, as theoretically shown by Mourmouras and Su (1995) in a dynamic game set-up. As a result of its theoretical and empirical advantages, CBI was widely adopted (particularly in the 1990s) in major industrialised economies and beyond. The form of independence, however, varies between instrument (economic) and goal (political) independence (see Fischer, 1995). Under the former, the operational goals of the central bank are exogenously determined, either by legislation or by another official body such as the finance ministry. Under instrument independence, the central bank is free to choose without external interference the means (the policy instruments) best suited to meet its given goals: the Bank of England is an example of this form of independence. Under goal independence, the central bank chooses independently both the goals of its policy, as well as the instruments best suited to meet its self-selected goal: the ECB is an example of this type of independence.

Delegating monetary policy to an independent central bank raises important questions of democratic checks and balances, i.e. questions of transparency and accountability. Accountability, in turn, is related to at least two dimensions. First, the type of central bank independence: the closer we move towards the independence goal, the higher the need for transparency and accountability. The second dimension is the number of goals set for the independent central bank. Perhaps non-intuitively, accountability declines with the number of policy goals, as given a set of policy instruments, increasing the number of goals results in trade-offs between goals. As the welfare ordering of policy outcomes under trade-offs is intrinsically more difficult than performance-ordering under a single policy objective, the scope for accountability increases when the central bank focuses on one policy objective. This accountability enhancement, combined with the theoretical and empirical advantages of inflation-averse monetary policy, resulted in the majority of the countries adopting central bank independence to define price stability as the overriding objective of monetary policy. The ECB is a characteristic example of this trend. On the other hand, the Fed, whose dual mandate includes price stability and maximum employment (plus moderate long-term interest rates), is a notable exception.

Monetary policy in the post-crisis period

The global financial crisis of 2008/2009 and the ensuing European sovereign debt crisis have fundamentally changed the operational framework of independent central banks. These changes relate to three levels. The first is methodological: We now have an appreciation of the potential real economic costs of financial crises that we previously lacked. This has motivated the development of a niche literature introducing a banking sector into DSGE models, thus allowing for financial crises (see e.g. Gertler et al., 2012 and Boissay et al., 2013). This literature promises to enhance the information available to policy-makers designing and implementing monetary policy.

The second change is that central banks have been given new macro-prudential tasks, such as the supervision of systemic banks in the EMU, conducted by the ECB since 2014. On this frontier, central banks don't know if they have failed until is too late. The costs of confusion and policy conflicts with multiple objectives may be too high, damaging the credibility of the central bank. And I refer to both types of costs: the costs of taking measures to avoid bank failures or the costs of doing nothing.

The third change is the situation on the ground: Rather than preventing excessive inflation, price stability in the post-crisis era is about preventing deflation. Under low inflation, central banks largely lose the main policy instrument of conventional (standard) monetary policy, namely targeting short-run interest rates through open market operations, as short-term rates are restricted by the zero lower bound limit. As a result, all major central banks have employed non-standard monetary policy tools in recent years. These include the provision of emergency liquidity and credit support to banks and other financial institutions, extending the definition of assets accepted as eligible collateral when providing financial institutions loans on a short- or medium-term basis; and introducing quantitative easing (QE) programmes in the context of which central banks have been buying from the private sector sovereign bonds, corporate bonds and other corporate assets.

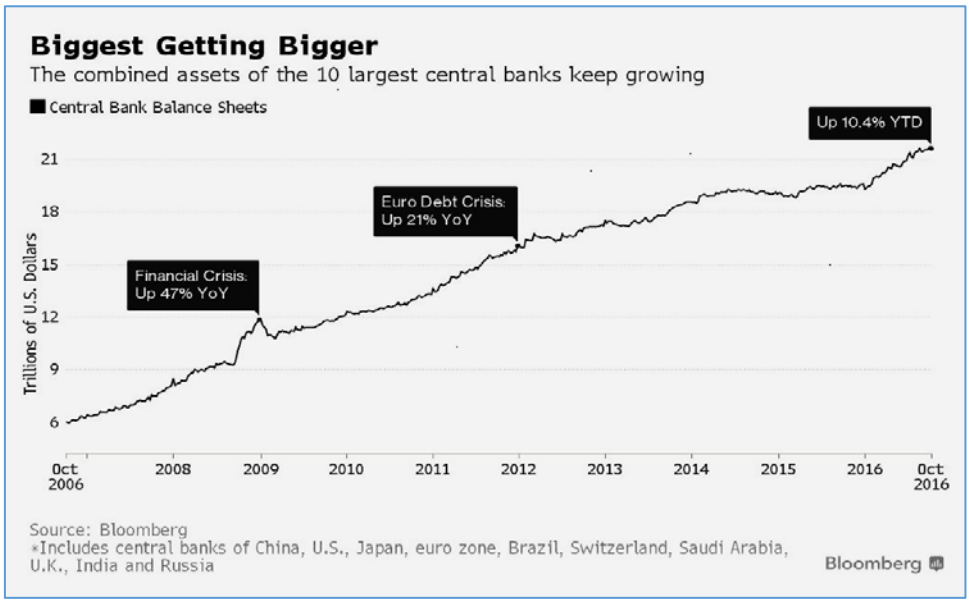
Let me quickly remind you of the ECB's monetary policy stance over the last nine years as a response to the worst financial crisis since the Great Depression, leading to negative interest rates and entering practically unchartered territory.

Table 1. ECB's non-standard measures

Year	Non-standard measures
Oct-Dec 2008	ECB cuts the base interest rate from 4.25% to 2.50%, provides US dollar liquidity through foreign exchange swaps, expands the list of assets eligible as collateral in Eurosystem funding operations, introduces the 6-month longer-term refinancing operations (LTROs) and decides the main refinancing operations to be carried out through a fixed-rate tender procedure with full allotment.
2009	ECB cuts the base interest rate from 2.50% to 1.00%, and introduces the first Covered Bond Purchase Programme (CBPP1).
2010	ECB activates the Securities Markets Programme (SMP).
2011	The ECB launches the second Covered Bond Purchase Programme (CBPP2) and introduces the 3-year LTROs.
2012	The ECB announces the Outright Monetary Transactions (OMTs).
2013	The ECB cuts the base interest rate to 0.25% and introduces forward guidance.
2014	The ECB cuts the base interest rate to 0.05% and the deposit facility rate to -0.20%, bringing it for the first time in negative territory and introduces the Targeted Longer-Term Refinancing Operations (TLTRO) with a 4-year maturity.
2015	ECB introduces the expanded Asset Purchase Programme (APP) and cuts the deposit facility rate to -0.30%.
2016	ECB accelerates the expanded Asset Purchase Programme (APP) and cuts the Main Refinancing Operations (MRO) rate to 0.00% and the deposit facility rate to -0.40%.

Indeed, the 10 largest central banks now own assets totaling $21.4 trillion, accounting for 29% of the world economy, up by 10% from end-2015, double what it was in mid-September 2008 and almost half the value of all debt in Bloomberg's global bond index (as shown in Chart 1)!

Chart 1. The combined assets of the 10 largest central banks



Finally, almost 75% of the world's central bank assets are controlled by policy-makers in four regions: China, the US, Japan and the eurozone. The following six – that is, the central banks of England, Brazil, Switzerland, Saudi Arabia, India and Russia – each account for an average of 2.5%. The remaining 107 central banks tracked by Bloomberg, mostly with IMF data, hold less than 13% (see Chart 2).

Chart 2. Central banks' combined assets

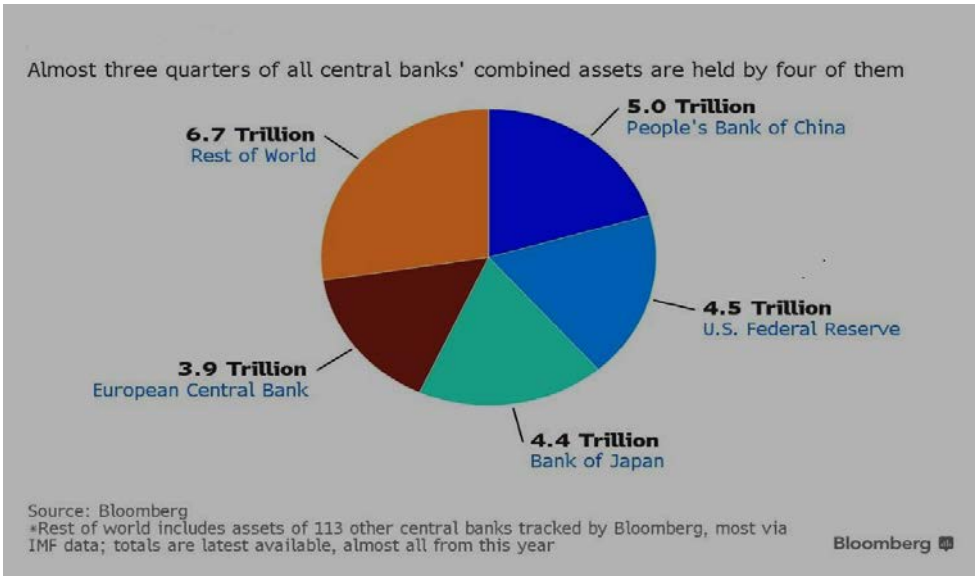
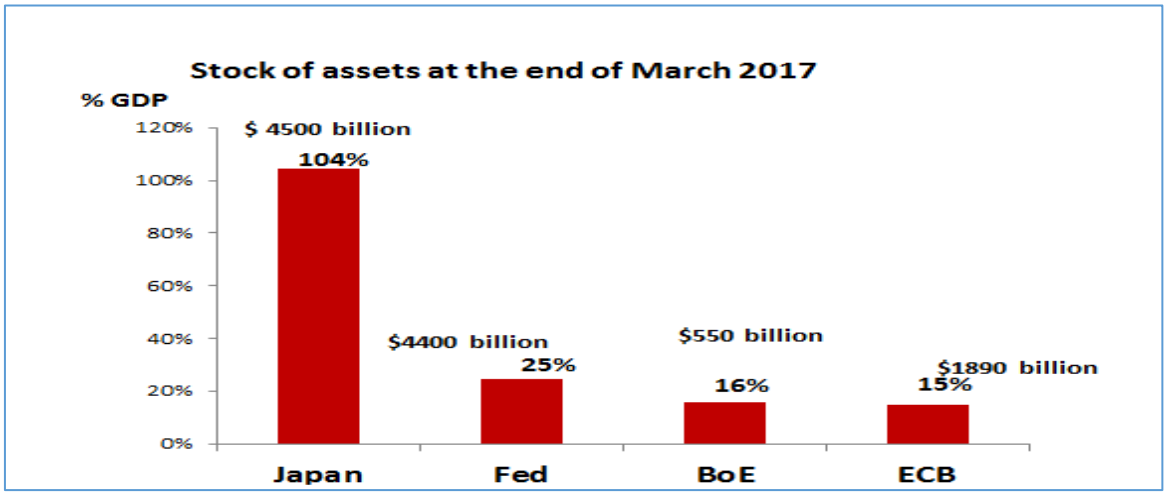


Chart 3. Stock of assets purchased by the four major central banks as a percentage of national GDP



Source: Bank of Greece, European Central Bank, Fed, Bank of England and Bank of Japan. Note: The ECB's purchased assets in the context of the SMP, CBPP1, 2 & 3, ABS and PSPP.

As a result, central bank balance sheets expanded considerably: since 2008 the Fed's balance sheet has more than doubled; the Bank of England's balance sheet trebled; while the ECB's balance sheet has also expanded considerably, particularly since the introduction of the ECB's QE programme in 2015.

QE programmes are designed to prevent deflation mainly through three distinct channels (see Demertzis and Wolff, 2016). First, the interest rate channel: this operates through lowering long-term interest rates to improve investment conditions and disincentivise savings. Second, the portfolio rebalancing channel: this operates through the purchase of relatively low-risk assets of long-term maturity, thus incentivising investors to take long positions in higher-risk (and thus higher expected return) assets. Third, the exchange rate channel, which as its name suggests works through a demand-boosting weaker domestic currency. The degree of success of QE programmes is under active research investigation Existing evidence, however, suggests that they have been successful in preventing large-scale deflation conditions, with the announcement effect of QE programmes being stronger than the effects of actual implementation (see e.g. Demertzis and Wolff, 2016 and Altavilla et al., 2015).

Challenges for central bank independence in the low-inflation period

The legacy of the great financial crisis of 2008 and the low inflation conditions that have since been observed bring new challenges for central bank independence. These challenges fall into two categories. First, the instruments' independence of central banks has

been put into question by external parties. Second, even if the instruments' independence is not formally challenged, it may be effectively compromised as a result of the changed conditions. The two kinds of challenges are obviously interconnected. A formally independent central bank facing effective constraints in the conduct of its policy may find it harder to deliver on its mandate and may subsequently face calls for restricted independence. On the other hand, a central bank whose independence is under threat may be constrained in its policy (instruments) choices. All in all, current circumstances pose challenges for the successful regime of monetary dominance paradigm established in recent years.

External challenges to the instrument's independence mainly stem from political pressure. In the US, for example, proposals have been tabled to subject the monetary policy of the Federal Open Market Committee (FOMC) to unlimited congressional policy audits; adopt a specific equation in setting monetary policy and require from the FOMC to justify, through congressional hearings and investigations, deviations from the policy dictated by that equation; and use the Fed as a source of finance to monetize specific government initiatives (see Fischer, 2015). In the euro-area, on the other hand, the QE programme has been challenged both for being too expansive, as well as for being too limited. Similar criticism has been voiced regarding the effects of monetary policy in the UK.

My own verdict is that the challenge should not be in the very concept of independence, but rather in the current economic policy mix: loose monetary policy plus tight fiscal policy. By keeping interest rates in negative territory for too long, the redistribution effects of monetary policy and the perceived degree of success of meeting the mandated objectives become more pronounced.

Starting with the former, low interest rates redistribute wealth from savers to borrowers; and result in higher asset prices. Reduced real returns on savings have caused reactions from circles representing the savers' constituency, both within and across countries, a point particularly relevant within the EMU; and as the distribution of asset holdings is highly uneven among sections of the population, the benefits of QE programmes may also be seen to be uneven. On the other hand, CBI independence may be questioned as long as recovery in major economies remains fragile; or is perceived as not achieving equally good performance across the board of its extended set responsibilities including, for example, financial stability.

The independence of central banks may be scrutinised due to concerns as to whether a central bank with an extended mandate of objectives can operate transparently and with an

appropriate degree of accountability in the context of a democratic political and economic system.

All in all, an independent central bank that is subject to democratic accountability needs broader support from the public. Clearly, with persistent negative rates you are bound sooner or later to lose major parts of the broad constituency that you need as an independent central banker.

Central banks have resisted challenges to their independence, pointing to the fact that political pressure onto monetary policy, mainly stemming from the fact that political cycles are shorter than the cycles faced by monetary policy design and implementation, introduces into macro-performance exactly the kind of pressure CBI was initially meant to address. For example, in the US, despite low inflation, survey-based measures of longer-term inflation expectations remain in the area of 2% (see Fischer, 2015). In the euro-area, the ECB's decision to extend its QE programme has been taken in full independence, with a view to achieving the medium-term price stability objective within an environment of decentralised national fiscal and structural policies (see Cœuré, 2015). Similar clear statements of intent have been recently expressed by the Governor of the Bank of England in the wake of questions raised at high political level regarding the present course of UK monetary policy.

Central banks' opposition to calls for formally restricting their independence does not ensure that monetary policy may not face effective restrictions in its choice of monetary policy instruments. This risk mainly comes from the interaction of monetary policy with other policies, namely fiscal, structural and financial. Separate authorities charged with the conduct of these policies may be formally independent, they are, however, also interdependent. The risk raised by such interdependence is that if one independent policy authority does not take appropriate action to meet its mandated objectives, the remaining independent authorities may be obliged to over-react in a persistent manner in order to meet their own objectives. To provide an example, a direct way of identifying such a policy interdependence failure is in the field of nominal demand: e.g. in the eurozone, nominal demand in Q2/2016 was only 7% higher than in Q2/2008 (real domestic demand was 1% lower than it had been in the abovementioned periods), but much lower than the potential increase in its trend rate (roughly at 24% cumulatively, assuming a trend rate of real growth of 1% and a target inflation rate of 2%). Compare this number (7%) with the one for the US 23% of nominal demand growth during the same period. In brief, this may result in a regime of "weak dominance" of other policies over monetary policy, effectively destabilising the regime of monetary dominance that CBI is meant to establish. Another example of such potential weak dominance relates to

the expansion of the balance-sheets of central banks in the context of QE programmes. This expansion may increase as a result of imperfections in the response of other policies to negative economic shocks. Such imperfections might pre-commit future monetary policy to lower than optimal for business cycle management interest rates, to prevent the central bank from registering large losses on its balance sheet caused by increased interest rates. This may have an important second round effect, as a low-interest rate bias in monetary policy could potentially render public budgets constraints less binding, causing a deficit bias in fiscal policy, threating price stability as explained by the fiscal theory of the price level.

It follows, therefore, that the ability of central banks to exercise optimally their instruments independence and deliver their mandated objectives crucially depends on policy co-ordination between monetary policy and other policies, namely financial, fiscal and structural (see Cœuré, 2015). The importance of such co-ordination cannot be understated in the present conditions. The financial crisis of 2008/2009 has left a legacy of debt overhang and bank undercapitalisation, hindering the ability of banking systems to finance the real economy. To the extent that these undercapitalisation problems are not resolved satisfactorily, monetary authorities may need to take extra steps to increase liquidity (such as, for example, the LTRO programmes), thus creating a regime of financial-policy dominance over monetary policy. Fiscal policy may also be subject to the same financial dominance: If bank undercapitalisation problems result into direct or indirect banking support programmes (through, for example, the establishment of bad banks), fiscal space is reduced; and the ability of fiscal policy to operate as a shock absorber declines, placing even greater pressure on monetary policy to operate as such. European Banking Union (EBU), with the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) at the heart of its operation, was designed precisely to offer a governance framework to separate fiscal and banking risks, so that the framework of monetary dominance is preserved in the euro-area, reverse the process of financial fragmentation observed following the global financial crisis and the European debt crisis; and restore the smooth operation of the transmission channels of the single monetary policy.

Similar arguments apply to the field of structural policy. As suggested by the theory of optimum currency areas, limited flexibility in the goods, services and labour markets, restricts the ability of the economy to adjust towards its natural output following economic shocks, thereby increasing the pressure on fiscal and monetary policies to offset to operate as shock absorbers. This pressure is particularly strong under negative shocks, due to downward rigidities in prices and wages. Limited flexibility may therefore result into a structural-

dominance regime, resulting into sub-optimal, fiscal and monetary over-reactions in the event of shocks. In the context of the eurozone in particular, the problem of shock stabilisation takes an extra dimension, given that second-best fiscal responses may not be available at national level, due to the existence of rules restricting national fiscal policies, not to mention market constraints following the increase in government bond yields at the height of the European debt crisis. This has led to calls to revise fiscal rules, allowing greater fiscal discretion at national level. These calls have been partially endorsed following the revision of the Stability and Growth Pact, which compared to its original version now places greater emphasis on the stock rather than flow of fiscal liabilities; and has shifted the emphasis of the rules' application from the short- to the medium-term.

Concluding remarks

In closing, it is true that during the Great Moderation period, central bank independence proved a highly-successful institutional innovation, primarily responsible for delivering the highly-valued public good of price stability. This policy objective, and the independence of central bank in its pursuit, should be maintained in the current period of low inflation, posing multiple challenges for central bank independence.

Having said that, the lessons from the destabilising effect of financial crises cannot be ignored. Without any doubt, the information set under which central banks operate should be enhanced to consider risks to financial stability. Whether, however, central banks should be primarily responsible for ensuring financial stability is less clear - the jury on this question is still out. Some may call it independence, others may view it as autonomy; some may want to think of it as a misnomer, others may view it as something deeper in the end which affects a central bank's operational independence. However, on the balance of existing theory and empirical evidence, I maintain that an independent central bank focused on price stability, along with structural adjustments, appropriate and sustainable fiscal policies and an enhanced technology ensuring macro-prudential stability offer the most promising path for restoring normal growth conditions and the creation of jobs, which is the ultimate objective. Independent central banks can exercise optimal policies towards delivering their mandated objectives only when they are well-coordinated with other policies, including fiscal and structural ones.

Thank you very much for your attention!

REFERENCES

Altavilla C., Carboni G., Motto R. (2015). Asset purchases programmes and financial markets: lessons from the euro area. *ECB Working Paper Series* No 1864, European Central Bank.

Barro, R, Gordon, D. (1983).Rules, Discretion, and Reputation in a Model of Monetary Policy. *Journal of Monetary Economics*, 12, pp. 101-22.

Beetsma, R. and Guiliodori, M. (2010). The macroeconomic costs and benefits of the EMU and other monetary unions: An overview of recent research. *Journal of Economic Literature*, 48, pp. 603-641.

Boissay F., Collard F., Smets F. (2013). Booms and Systemic Banking Crises. ECB Working Paper Series No 1514, European Central Bank.

Cœuré, B. (2015). Lamfalussy was right – independence and interdependence in a monetary union. Speech at the Lamfalussy Lecture Conference, organised by the Magyar Nemzeti Bank (the central bank of Hungary), Budapest, 2 February 2015.

Cuckierman A. (2008). Central Bank Independence and Transparency: Evolution and Effectiveness. *European Journal of Political Economy*, vol. 24, pp. 722-736.

De Grauwe, P., Yeumei, J. (2015). Quantitative Easing in the Eurozone. It's possible without fiscal transfers. CESifo Area Conference on Money, Macro and International Finance, 20-21 January 2015.

Demertzis M., Wolff W. (2016). The effectiveness of the European Central Bank's Asset Purchase Programme. Bruegel Policy Contribution 2016/10.

Dotsey M., Ireland P., (1996). The welfare cost of inflation in general equilibrium. *Journal of Monetary Economics*, vol. 37, pp. 29-47.

Driffill J., Mizon, G.E., and A. Ulph (1990). Costs of Inflation. *Handbook of Monetary Economics*, vol. 2, pp. 1013-1066.

Fischer, S. (1995). Modern Approaches to Central Banking. NBER Working Paper Series 5064. Cambridge, National Bureau of Economic Research.

Gertler, M., Kiyotaki N., and A. Queralto (2012). Financial Crises, Bank Risk Exposure and Government Financial Policy. *Journal of Monetary Economics*, vol. 59, pp. 517-534.

Kydland, F.E, Prescott, E.C. (1977). Rules rather than discretion: The inconsistency of optimal plans. *The Journal of Political Economy*, 85, pp. 473-492.

Leeper, E. (1991). Equilibria under "active" and "passive" monetary and fiscal policies. *Journal of Monetary Economics*, vol. 27, pp. 129-147.

Mourmouras, I. and M.G. Arghyrou (2000), *Monetary Policy at the European Periphery: Greek Experience and Lessons for EU Candidates*, Berlin, Germany and New York, USA: Springer-Verlag.

Mourmouras I. and D. Su (1999). Central Bank independence, policy reforms and the credibility of public debt stabilizations. *European Journal of Political Economy*, vol. 11, pp. 189-204.

Mourmouras, I. (1994), *Towards granting political and economic independence to the Bank of Greece* [in Greek], To Vima, Athens

Obstfeld, M. (1996). Models of currency crises with self-fulfilling features. European Economic Review vol. 40, pp. 1037-1047

Rogoff, K. (1985). The optimal degree of commitment to an intermediate monetary target. *Quarterly Journal of Economics,* vol. 100, pp. 1169-89.

Svensson, L. (1995). Optimal inflation targets, conservative central banks and linear inflation contracts. *CEPR Discussion Paper* No 1249.

Vujčić, B. (2016). The role of central banks and how to insure their independence. Speech by at the Symposium on "Central Banking in Central and Eastern Europe: Policy Making, Investment and Low Yields", organized by the Czech National Bank and OMFIF (Official Monetary and Financial Institutions Forum), Prague, 10 June 2016.