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monetary and financial policies and new member
states

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Abstract

The global financial crisis has cast doubt on existing within the mainstream economics consensus on monetary policy. So called 'New Consensus Monetary Policy' appeared to lack many important operational, political and institutional issues, especially with regard to consistency of the monetary-fiscal policy mix within the eurozone, as well as with reference to policy mix in the individual member countries. When crisis emerged, problems with monetary-fiscal coordination turned to be more complicated.

The crisis has proved also inefficiency of the "one size fits all" monetary policy, implemented by the ECB. The divergences of economic performance, business cycles, and financial development – all attending the financialisation process – have become eye striking among the EMU members. Extremely low inflation rates have brought new challenges into focus resulting i.a. from the zero bound on nominal short-term interest rates.

Taking this into consideration, the aim of this paper is to investigate the ways in which the monetary and financial policies of the ECB can be conducted in a low interest rates environment. Undertaken analysis allows understanding the strengths and weaknesses of these policies. It also creates a background for formulating alternative policy proposals aimed at dealing with divergence and disparities between EU member countries.



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1. Introduction

Prior to the outburst of the global financial crisis, advanced economies had succeeded in bringing their inflation rates under control. The decline in inflation was associated with a market convergence of inflation rates across countries accompanied with a relatively stable growth. Central banks, during this so-called “Great Moderation” period, were strong defenders of the price stability. Such stability was perceived – in line with theses of so-called New Neoclassical Synthesis – as the main (and sometimes even the sole) and most adequate goal of monetary authorities and its achievement – as the best feasible contribution of a central bank to general welfare. Thus, there was little or no attention paid to other goals, like reducing unemployment or boosting economic growth (Goodfriend and King 1997, King 2006, Woodford 2003).

In order to achieve the goal inflation targeting strategies were widely used by central banks. Steering short-term interest rates was considered a sufficient means of achieving these targets as open market operations appeared to allow for influencing long-term interest rates (Gabor 2010). Inflation forecasts, postulated, among others by Woodford (2001) and Swenson (1997), played a key role in monetary policy decision-making as financial markets were assumed to be efficient (as presupposed by Eugene Fama). Therefore, imperfections such as asset price bubbles were considered possible, but only occasional, so monetary authorities could deal with them on the ex post basis. Finally, microprudential supervision was assessed as sufficient in order to mitigate risks occurring in the financial sector (Weber 2012).

All those elements constituted elements of the so-called ‘New Consensus Monetary Policy’. Apart them, the consensus included also the need for sufficient credibility and transparency of monetary policy, using some type of policy rule and, finally, central bank independence, at least with reference to its instruments (see. e.g. Arestis and Sawyer 2005, Clinton 2009, Fontana and Baddeley, 2005, Taylor 2002). The latter factor was of special importance here, as it determined relations with the fiscal authorities.

The global financial crisis, however, has cast doubt on this monetary policy consensus. It occurred that low and stable inflation is no guarantee against major macroeconomic and

financial instability. Moreover, relations between monetary stability and financial stability turned to be much more complicated and complex and the financial markets themselves – pretty far from efficiency (Allington et al. 2001, Shiller 2003).

The crisis has proved also inefficiency of the “one size fits all” monetary policy, implemented by the European Central Bank in the European Monetary Union. The divergences of economic performance, business cycles, and financial development – all attending the financialisation process – have become eye striking among the EMU members. Moreover, extremely low inflation rates have brought new challenges into focus resulting i. a. from the zero bound on nominal short-term interest rates. Proper liquidity management has become of primary importance as a tool used to regain control over money markets, supporting at the same time attempts of governments to provide fiscal stimulus to the depressed economies.

The global financial crisis has revealed growing divergence among European Union member states, particularly among the old and the new EU member states. They have appeared to be divergent not only in terms of inflation differentials and the changing patterns of competitiveness, but also in terms of economic development. Therefore, the impact of the activity of the European Central Bank has become stronger not only on macroeconomic performance in the new EU member states, which have already joined the EMU, but also on the new EU member states staying outside. For such countries, monetary and financial policies of the ECB have been one of the most important factors influencing monetary policies and liquidity management activities launched by the national central banks.

At the same time, problems with coordination between monetary and fiscal policy intensified. The lack of sufficient coordination between actions taken by the ECB, domestic central banks from EU countries being outside of euro zone and fiscal authorities of all EU countries deteriorated policy outcomes and made overcoming of deflationary and recessionary tendencies harder. Problems with coordination, in turn, intensified political tension between individual member countries.

Taking this into consideration, the aim of this paper is to investigate the ways in which the monetary and financial policies of the ECB can be conducted in a low interest rates environment. Undertaken analysis allows understanding the strengths and weaknesses of these policies. It also creates a background for formulating alternative policy proposals aimed at dealing with divergence and disparities between EMU member countries. In the context of those phenomena we also consider areas of monetary and fiscal policy interactions, problems with monetary-fiscal coordination within the EU and discuss their potential solutions formulated in the literature. We also consider increasing responsibilities of the ECB in the context of the Banking Union, as well as changes in its procedures connected with the new system of votes rotation. Those two topics we consider with from the New Member States (NMS) point of view.

2. Monetary policy tools in a zero lower bound environment – guidelines for the European Central Bank

Following the global financial crisis, economic activity in the EMU registered stagnation. The outburst of the sovereign debt crisis led to a renewed downturn towards the end of 2011. In the course of 2013, the economic downturn in the EU appears to have ended but output is still below that in 2008, and the process of polarisation within Europe has continued apace (EuroMemo Group 2014). In reaction to the crisis, the ECB reduced its main refinancing lending rate to 0.05% (and deposit rate to -0.2%) in September 2014. Regardless of this cut, the EMU countries are still facing strong deflationary pressure. Inflation measured with HICP index in the whole EMU remains far below the official target of 2%. The bank lending is falling, especially to SMEs sector, manifesting a breakdown in the normal transmission mechanism of monetary policy (Cour-Thimann and Winkler 2012).

Exceptional times require exceptional measures. After lowering basic interest rates, the unconventional instruments have to be introduced. Many central banks have yet expanded their balance sheets in order to maintain the financial stability and to minimize liquidity tensions in the financial system (Bernoth, Fratzscher and König 2014, Abbassi and Linzert 2011). The ECB is not an exception. The central bank of the EMU has launched several

programmes aimed at the purchase of both government and covered bonds. It has also provided low-interest three-year loans with no conditions to commercial banks of the EMU countries.

Unconventional actions appear to be a necessity as reaching the lower bound of zero by reference interest rates puts a limit on efficiency of monetary policy. Under such circumstances interest rate channel has to be replaced with price, balance sheet and liquidity channels.

Why the zero lower bound on nominal interest rates is so inconvenient for monetary authorities? Binding zero lower bound means that the central bank's ability to reduce interest rates in response to ensure the timely return of inflation to its target is likely to be constrained if average levels of interest rates and inflation are already low. If monetary policy is constrained this way, an average output is likely to be lower than otherwise it would be, because of rising deflation expectations, which have negative influence on demand and employment. In this case, a sufficiently high deflationary shock may push the economy into the liquidity trap or even in a deflationary spiral, according to mechanism presented once by K. Wicksell and J.M. Keynes.

The strength of the zero bound effect depends mainly on two factors, i.e. on the target rate of inflation and on the equilibrium real interest rate of the economy. The higher the target rate of inflation, the less likely is that the zero lower bound starts to bind. Higher inflation target raises the nominal interest rates and the actual rate of inflation, providing sufficient room for lowering interest rates if necessary. Similarly, the higher equilibrium real interest rate, the lower the likelihood of problems resulting from the zero lower bound. This is because at zero inflation real (steady state) interest rate is equal to nominal (steady state) interest rate, and the higher is this real rate, the more space remains for monetary policy to lower its reference rate and hence also to lower market nominal interest rates and real interest rates.

One could presume that the simplest way for central bank to avoid problems related to a zero lower bound is to sustain positive and low rate of inflation by targeting appropriately high inflation rate. However, this holds true only partially. What monetary authorities must

do is to implement and protect coherent monetary order, in which monetary policy has a well-defined goal, authorities charged with achieving that goal have the powers needed to achieve it and private agents understand that goal, expect it to be pursued, and base their own actions on that expectation (Laidler 1999).

Coherent monetary order helps central banks to become credible. Credibility is an essential condition of avoiding or overcoming (if necessary) the zero bound effect, because an unfortunate implication of the zero bound is that the worse the current economic downturn, the longer may be the period over which nominal interest rates are expected to remain at zero. Incredible monetary policy limits a central bank's ability to alter and increase private agents' expectations of inflation and, thereby, limits its ability to lower current interest rates and stimulate aggregate demand. In situation like this, deflationary expectations may become very sluggish, preventing nominal interest rate from quick rising.

What is especially worth emphasising is that the central bank's credibility should be built symmetrically around its inflation target and as forcefully when inflation is below target as when it is above target (King 1999). If credibility is not build in this way, inducing inflationary expectations among the public while the zero bound starts to bind and hence generating negative real interest rates may become impossible, as rational private agents do not believe in the central bank's commitments.

What can credible monetary authorities do, if reference rate has already hit its bound of zero? Bernanke and Reinhart (2004) divide unconventional monetary policy tools into three main categories:

- provision of assurance to investors that short rates will be kept lower in the future than they currently expect ("commitment effect", "duration effect"),
- increase in the size of the central bank's balance sheet ("quantitative easing"), aimed at:
 - inducing the portfolio balance effect,
 - enforcing the signal of the central bank's commitment to keep the policy rate low,
 - reducing the expected value of government debt servicing costs, thereby reducing the expected value of future tax payments,

- change in the relative supplies of securities in the marketplace by altering the composition of the central bank's balance sheet ("qualitative easing"), via (Bernanke 2009):
 - lender of last resort activity,
 - provision of liquidity directly to borrowers and investors,
 - purchase of longer-term securities for the central bank's portfolio.

Some of tools that can be used while implementing unconventional monetary policy are discussed in Table 1, which outlines each policy proposal with its advantages and disadvantages.

Table 1 Proposals for overcoming the zero bound effect

Instrument	Advantages	Disadvantages
Open-market purchases of Treasury bills	<ul style="list-style-type: none"> • may transmit monetary policy impulses to the economy via portfolio reallocation • may increase inflation expectations and hence lower real interest rates (<i>ex ante</i>) • may stimulate the economy through the credit channel, i.e. through balance sheet channel (improving structure of banks' and other private agents' balance sheets) and bank lending channel (inducing credit expansion and the fall of credit charges) 	<ul style="list-style-type: none"> • at zero interest rate, private agents may have no reason to reconsider their portfolio allocations because Treasury bills and money are close substitutes when nominal interest rates are at levels close to zero • stimulation via credit channel may be ineffective, as it cannot decrease banks' interest expenses and cost of financial intermediation and it cannot increase asset prices • may be costly and may expose the central bank to capital losses
Open-market purchases of long-term government bonds	<ul style="list-style-type: none"> • buying large amounts of these bonds lowers interest rates and hence increase collateral values • to some extent these operations prevent bonds' prices from falling hence lower the term premium 	<ul style="list-style-type: none"> • risk of future declines in prices of long-term bonds may limit effectiveness of this instrument • may be very costly and may expose the central bank to serious capital losses
Purchasing private sector securities	<ul style="list-style-type: none"> • reduces credit risk premiums that might have risen in the face of zero short-term treasury rates • the central bank takes the credit risk onto its balance sheet via purchases of these securities 	<ul style="list-style-type: none"> • may require changes in the central bank's statute • it is hard to estimate to what extent the central bank should take credit risk onto its balance sheet
Lending by central bank	<ul style="list-style-type: none"> • accepting a wide range of securities and other bonds as a collateral and making loans to a wide range of private agents may be a sufficient impulse for the depressed economy to recover 	<ul style="list-style-type: none"> • may require changes in the central bank's statute • may raise difficulties as the central bank would have to assess credit risk, choose among borrowers, and monitor loans' repayment
Monetization of the deficit	<ul style="list-style-type: none"> • allows for the efficient transmission of monetary impulses to the economy (via portfolio reallocation) 	<ul style="list-style-type: none"> • private agents may expect a future lump-sum tax on wealth equal to the money

		<p>transfer per capita and hence would not make change in their portfolios</p> <ul style="list-style-type: none"> • may be against the law
Explicit commitment to inflation target	<ul style="list-style-type: none"> • gives private decision-makers more information about monetary policy and reduces uncertainty • may induce inflationary expectations and hence cause real interest rates (<i>ex ante</i>) to fall 	<ul style="list-style-type: none"> • may destroy the central bank's credibility if target is not fulfilled • may be inconsistent with maintaining price stability • it is uneasy to estimate what rate of inflation is sufficient to alter the public's expectations
Explicit commitment to exchange rate target	<ul style="list-style-type: none"> • gives a signal that the central bank is going to lower interest rates in the future to profit from foreign currency purchases via greater than expected future depreciation of domestic currency • may allow portfolio reallocation • may induce inflationary expectations and hence cause real interest rates (<i>ex ante</i>) to fall 	<ul style="list-style-type: none"> • may require printing unlimited quantities of domestic currency to buy foreign currency, which is likely to conflict with maintaining price stability and hence such a commitment is not credible • may harm relations with countries whose currencies would have to appreciate
Explicit commitment to holding the chosen market interest rate at zero	<ul style="list-style-type: none"> • may induce a decline in longer-term rates, as long-term interest rates represent the average of current and expected future short-term rates plus a term premium • prevent bonds' prices from falling and hence lower the term premium and longer-term rates 	<ul style="list-style-type: none"> • private agents would expect the zero rate to be maintained as long as it is needed to do so, hence, in order to go beyond that, the central bank has to commit to maintaining the zero rate in the future even after it becomes appropriate to raise this rate under a certain criterion
Writing options	<ul style="list-style-type: none"> • allows the central bank to specify its ceiling (upper bound) for a particular interest rate over a specified future period and to monitor its credibility via day-to-day changes in options' prices 	<ul style="list-style-type: none"> • financial punishment embedded in these options may expose central bank to serious financial losses, hence writing such options by central bank may not be credible for rational agents
Imposition of a tax on central bank's monetary liabilities (Gessel tax)	<ul style="list-style-type: none"> • introducing carry tax on electronic bank reserves and money allows market nominal interest rates to become negative • the zero bound effect is not a problem anymore, as imposing a temporary carry tax is a simple way of generating negative real interest rates 	<ul style="list-style-type: none"> • costs of introducing such a system and its monitoring may be high • may require changes in the law • cash is anonymously held and there is no incentive for bearers to present their savings for the levy

Source: Amirault and O'Reilly (2001), Bryant (1999), Buiter and Panigirtzoglou (1999), Clouse et al. (2000), Goodfriend (2000), Yates (2002).

There is no clear-cut consensus in the literature, which instruments and in what combination should be introduced in a zero lower bound environment. Undoubtedly, in exceptional times, central banks must use instruments other than the policy rate, although increased complexity resulting from the multiplicity of and interrelationship among central bank instruments presents new challenges for central bank communication (Lenza, Pill and Reichlin 2010).

The use of unorthodox instruments should repair the credit channel for the transmission of monetary policy. It should enable the control over the yield curve and the structure of asset prices due to appropriate change in market expectations, portfolio shifts, and the increased amount of money in circulation (Bernoth, Fratzscher and König 2014). It should also allow for liquidity and maturity transformation and addresses adverse selection problems (Gianonne et al. 2012).

Important areas of concern are the costs and consequences of unconventional monetary policy. A high level of bank reserves may reduce the level of interbank lending and lead that market to malfunction. Moreover, ample liquidity supplied by the central bank may lead to engagement of private agents in risky undertakings, involving the purchase of illiquid securities. This process can lead to the formation of asset price bubbles and can threaten financial stability (Rajan 2006). Low interest rate environment implies also low seigniorage income. If the policy rate approaches zero, then the marginal main refinancing operations rate falls close to zero, leaving the central bank with an insufficient source of regular income (Vergote et al. 2010). Next, central bank purchases of government securities may sustain mounting public debt (Joyce et al. 2012). Even if central bank is not participating in the primary debt market, it enters the secondary market. This leads to the monetization of the deficit (Cobham 2012), as well as to a further segmentation of financial markets.

Another challenge not to be forgotten is the exit strategy, describing how the policy rate, the size of the central bank's balance sheet and the composition of the central bank's portfolio of assets is going to be adjusted over time until a new framework of monetary policy is reached (Di Giorgio 2014). For instance, the quick reduction of the level of reserves by central bank as a part of exit strategy may lead to high inflation, especially if monetary authorities are under pressure not to raise interest rates in an environment of high unemployment. Therefore, monetary authorities have to find the right time to exit unconventional policies, to ready the public for an eventual exit and to take into account potential international spillover effects of the exit (Nowotny 2014).

Sometimes, primarily during severe financial distresses, central bank must go far beyond what Bowdler and Radia (2012) call "conventional unconventional monetary policy" in

form of pure QE. Instead, central bank must immerse itself within the financial system, acting both as seller and as buyer of different financial assets in order to transform dormant money into liquidity. This requires a step beyond traditional responsibilities by taking control of the process of intermediation and directly absorbing financial system risk (Aquanno 2014).

However, even such immersion may be not sufficient in a single currency monetary union, which involves only partial share of sovereignty. In a union of this type, there is only one supranational central bank to fit macroeconomic circumstances in all member states (Mundell 1997). At the same time, in a single currency monetary union governments issue debt in a “foreign” currency, so they cannot guarantee to the bondholders that they will always have the necessary liquidity to pay out the bond at maturity. The absence of such a guarantee makes the sovereign bond markets in a monetary union prone to liquidity crises and forces of contagion, very much like banking systems that lack a lender of last resort (De Grauwe 2013). Therefore, supranational central bank cannot be oriented only at the price stability in the monetary union, neglecting macroeconomic differences between members of single currency area. Instead, it should use every monetary policy tool if necessary in order to prevent the market borrowing costs from diverging across the member states.

When the market nominal interest rate reaches or is close to zero, responsibility of supranational central bank additionally increases. It cannot be burden with anti-inflationary bias and it should not react restrictively to expansionary fiscal consolidations (Cwik and Wieland 2010). Instead, supranational central bank should undertake a credible commitment announcing that nominal interest rates will be kept at low level for a prolonged period. This is the precondition for market interest rates stabilisation and making them less fragile to the eventual fiscal stimulus aimed at the rise in inflation expectations (Foresti and Mariani 2014).

Considering this, it should be clear that there is a growing need to reconcile the ECB inflation targeting strategy (De Grauwe 2013). As noted by Sawyer (2013), a current “one size fits all” inflation targeting strategy does not address issues of credit booms and financial instability in the EMU. Instead, it only increases divergences among the EMU members. In order to avoid this divergence process in the EMU, where c.a. 80% of the financing is provided by banks, the ECB must strive for delivering them liquidity (Trichet 2014). Hence, the ECB's

response to zero bound problem must rely on banks as intermediaries to ensure the continuous financing of households and firms rather than intervening in asset markets directly.

In a world of multiple objectives (including employment and financial stability), there is also a need for multiple instruments operated by different authorities, not central bank only. This in turn requires policy co-ordination, particularly if the ECB is to stand ready to operate as lender of last resort or as a buyer (of government bonds) of last resort. A closing of monetary policy, fiscal policy and surveillance over the financial system is necessary (Nowotny 2014), as combining monetary and prudential instruments appears to be the main challenge. The new formal breakdown of responsibilities is necessary, as well as re-evaluation of the ECB functions.

3. Monetary policy in the European Monetary Union – continuance or upheaval?

The EMU is the example currency area with unified exchange rates, where national currencies were replaced with common currency (Mundell 1997). According to the Optimum Currency Areas theory, creation of such area should be aimed at the improvement of the welfare of citizens of its member states as compared with welfare achieved when each country acts separately. Only functioning as an optimal domain allows countries to gain this improvement.

Optimality of a currency area is usually defined in terms of criteria that have been introduced into the literature since the 1960s. Majority of these criteria tries to find out mechanisms that could replace autonomous monetary policy relying on flexible exchange rate arrangement. Among these mechanisms integration of labour markets of members of a currency area, openness of their economies, diversification in their production and consumption, similarity of inflation rates and stability of exchange rate are outlined. Aside from these criteria, other properties were identified as relevant for choosing suitable participants in an optimum currency area, such as: financial market integration, fiscal integration, and – last but not least – political integration.

Clearly, the OCA theory introduced a handful of properties defining optimality of a currency area, but it lacked a unified analytical framework. Two problems appeared, namely the “problem of inconclusiveness” and the “problem of inconsistency”. The first problem oc-

curred, as OCA properties gave inconsistent clues whether a given country should join a currency area or not. The second problem arose because for particular economies according to some criteria, countries under consideration should join a currency area, but according to other – it should not (Tavlas 1994).

Probably these two problems added to neglecting several properties formulated within the OCA theory while creating the EMU. So-called convergence criteria introduced to the Maastricht Treaty refer only to some of these properties, while others are obviously forgotten. For instance, as noted, proponents of the OCA theory emphasized high importance of fiscal integration for the establishment of the successful currency area indicating that the higher the level of fiscal integration, the greater the ability to carry out transfers from low-unemployment regions to high-unemployment ones. They also reiterated that such fiscal integration was possible only if members of a currency area participated in some form of political union (Mongelli 2002, Tavlas 1993).

Political integration in the EMU appears to be one of the most important OCA properties, more or less deliberately forgotten during the negotiation of the Maastricht Treaty. However, it remains beyond discussion that what really matters for the functioning of the currency area is the political will to integrate among prospective members. Political will fosters cooperation on various economic policies and encourages institutional development. It also cushions working out reasonable compatibility in preferences referring to growth, inflation and employment (Corden 1994, Tavlas 1993). It is highly unlikely that currency area could be decided on anything else than the political factors. Political preferences and interests of participants in a currency area are crucial for its performance.

In European context, it took several decades of bargaining over economic integration and mutual fiscal constraints before the stage was set for the ECB to issue a common currency. The process of political integration has not been finished, however. The gap between monetary integration and political integration gives rise to questions about the democratic accountability and legitimacy of the EMU that groups many different countries in terms of economic size and economic development (Henning 2007).

There was a “design fault” in the institutional setting of EMU as the Maastricht Treaty embodied a fundamental political choice not to create a fully-fledged economic and political union to accompany monetary union. The Maastricht Treaty centralised monetary and exchange rate policies, leaving in the hands of national policymakers fiscal, microeconomic, structural and prudential supervisory policies. As underlined by Salines et al. 2011, the aim was to endow them national policymakers with room for manoeuvre and policy competition while preventing negative externalities through implicit coordination via rules for deficits and debt levels with the use of a mixture of policy guidance, peer pressure and the threat of financial sanctions imposed by the Stability and Growth Pact.

These rules appear to be insufficient, however. A number the EMU members have obviously failed to meet even the limited set of three convergence criteria (except for the exchange rate stability), formulated originally in the Maastricht Treaty. The persistent problems of countries in refinancing their debt, keeping low but positive inflation rates and long-term nominal interest rates are only symptoms of the structural problems and growing divergence that had already existed before the global financial crisis (Weber 2012).

The efficacy of a common monetary policy for all EMU members is similar to the issue whether these members constitute an optimum currency area. The more significant amount of diversity that remains among members of such area the more difficult is to implement a common monetary policy (Lee and Crowley 2008), as there are large yield spreads for sovereign bonds as well as large lending interest rate differentials in member states. Obviously, if supply and demand shocks and the speed with which the economy adjusts are similar within a group of countries, then the need for monetary policy independence is limited. Under such circumstances, a common monetary policy may be enough to influence economies of all members of a currency area. The question arises, how and when fast such similarity may be reached, as economic features of countries sharing common currency may change over time.

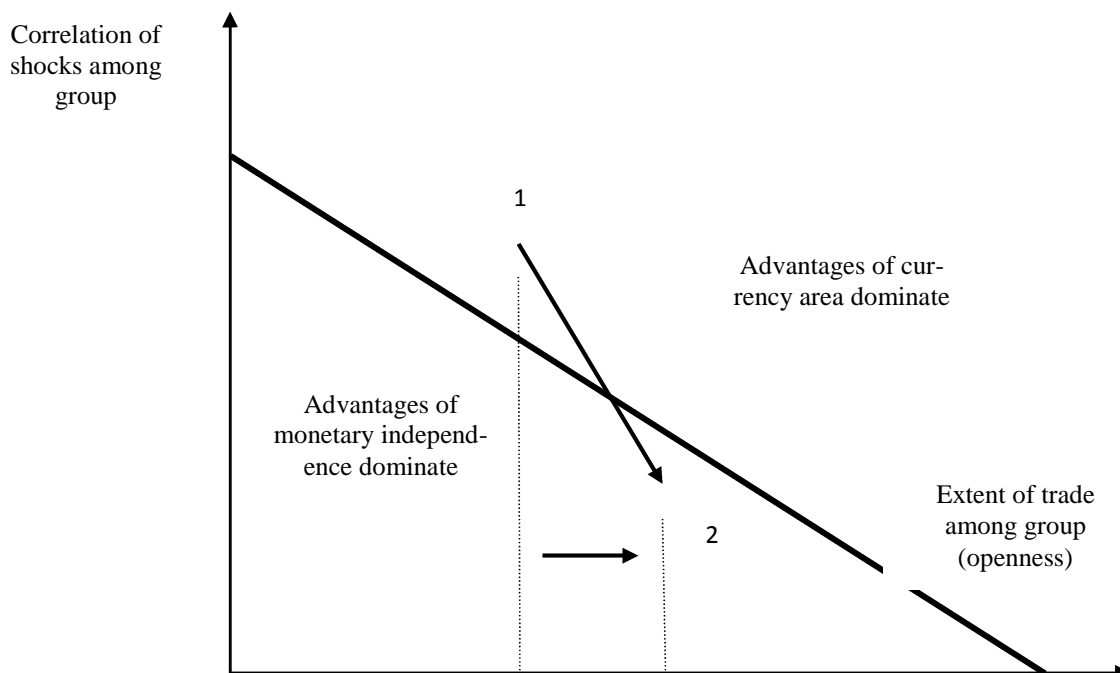
Initially, the OCA theory had taken various criteria as being unchanging exogenous variables. This standpoint has been called into question since 1990s. Some authors noticed that the OCA properties were jointly endogenous and that they could evolve over time after a currency area had been formed. Therefore, forming a currency area may induce a rise or fall

in correlation of shocks among members of that area. Two opposite hypotheses with different implications were formulated, the specialization hypothesis and the endogeneity hypothesis.

The first hypothesis postulates that as countries establish a currency area their reciprocal trade increases, mainly due to an exchange rate risk minimization that in turn brings about economies of scale and network effects. Private agents choose one region that is most appropriate for their activities and concentrate production facilities there. This results in a higher degree of openness and encourages a specialization in the production of goods and services for which particular currency area members have comparative advantages. This means that currency area members will become less diversified and more exposed to asymmetric shocks (De Grauwe 2012). This process is illustrated on chart 1.

According to it, an increase in economic integration shifts a chosen country to the opposite side of the OCA line representing combinations of correlation of shocks and openness among prospective members of a currency area that result in zero net benefits from relinquishing monetary policy autonomy. Moving from point 1 to point 2 means that currency area members are more open, but shocks to which they are exposed become less correlated.

Chart 1 Influence of specialization on the optimality of the currency area

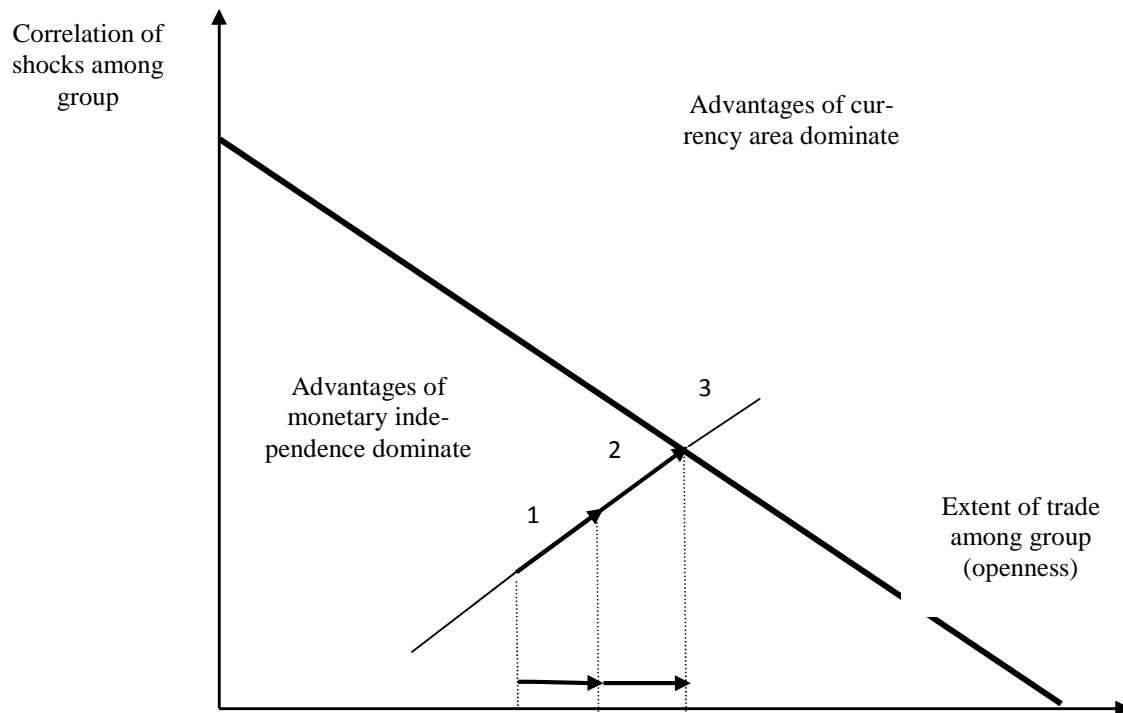


Source: own preparation based on Mongelli (2002).

On the other hand, the endogeneity hypothesis assumes that there is a positive relationship between economic integration and correlation of business cycles resulting in high correlation of income and shocks among members of a currency area. The endogeneity hypothesis stems from the idea that integration reduces trading costs throughout the elimination of costs arising from exchange rate volatility. Fixing an exchange rate imposes serious restrictions on domestic economic policy; especially it precludes the possibility of competitive devaluation or currency dumping. At the same time, it fosters supranational transactions and foreign direct investment. This in turn intensifies reciprocal trade, economic integration and business cycle synchronization. The result is an increasing propensity to import from other currency area members, and in shocks spill over due to trade and disciplining effect of a firm exchange rate arrangement (Frankel and Rose 1998, Rose and Engel 2003).

The assumption by which this reasoning is driven is that process of integration is gradual, as shown on chart 2. As chart shows, initially a group of countries fosters integration of their economies by lifting restrictions on reciprocal trade, which results in higher openness and higher correlation of business cycles (move from point 1 to point 2). However, they do not meet a majority of the OCA properties; hence, they are reluctant to give up an independent monetary policy. However, if they decide to establish a currency area (move from point 2 to point 3), the extent trade among members and correlation of their business cycles is going to grow subsequently. As a result, countries will find themselves on the right of the OCA line. This means, that countries can meet the OCA preconditions *ex post*, even if they do not meet them *ex ante*.

Chart 2 Influence of endogeneity on the optimality of the currency area



Source: own preparation based on Mongelli (2002).

On the other hand, the endogeneity hypothesis assumes that there is a positive relationship between economic integration and correlation of business cycles resulting in high correlation of income and shocks among members of a currency area. The endogeneity hypothesis stems from the idea that integration reduces trading costs throughout the elimination of costs arising from exchange rate volatility. Fixing an exchange rate imposes serious restrictions on domestic economic policy; especially it precludes the possibility of competitive devaluation or currency dumping. At the same time, it fosters supranational transactions and foreign direct investment. This in turn intensifies reciprocal trade, economic integration and business cycle synchronization. The result is an increasing propensity to import from other currency area members, and in shocks spill over due to trade and disciplining effect of a firm exchange rate arrangement (Frankel and Rose 1998, Rose and Engel 2003).

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The question arises, which hypothesis suits better the EMU case. Although it is impossible to resolve this dilemma unambiguously, it appears to be obvious that EMU will always face a certain degree of heterogeneity. Analysis conducted by Lee and Crowley (2008) supports the view that there are substantial disparities across member states, reflecting the extent of heterogeneity among the national economies inside the EMU. This view supports findings of Bayoumi and Eichengreen (1997), who yet in the beginning of the nineties argued that supply shocks had been larger and less correlated and adjustment to shocks had been slower across Europe than in the US.

Moreover, as emphasised by Lee and Crowley (2008), under the hypothetical condition that the ECB responded to the economic conditions of the individual EMU members, the target interest rates for most member states, except Germany, would have been quite different from those predicted by the area-wide data. Therefore, the ECB policy best fits the economic conditions of only certain member states. Because economic conditions of the EMU members have been quite unsynchronized, the ECB policy actions, which might be adequate for the EMU as a whole, have been too loose for faster growing member states such as Greece, Portugal and Ireland, but too tight for slower growing member states, such as France.

Additional problem is posed by growing divergence of business cycles between core and peripheral EU member states. This may be additional barrier not to be crossed for Central and Eastern European countries applying to join the EMU, especially during prolonged period of maintaining policy rates at the level close to zero. Low interest rates environment arguably is going to make meeting inflation rate and nominal interest rate convergence criteria more difficult (Lipinska 2008).

Achieving and maintaining a high degree of economic convergence is therefore of the highest importance (Moutot, Jung and Mongelli 2008). The ECB has no other choice but to become the central counterpart for the entire cross-border banking market and to intervene in the sovereign bond market of some stressed countries, using “big bazooka” instead of “Big Bertha” only.

The absence of domestic demand management and failure to prevent the build-up of intra-area divergences and imbalances do not help in the implementation of a common monetary policy, as well as unbalanced competitiveness positions and debt-overhang legacies. Coping with these problems requires not only changes in the ECB monetary policy strategy, but also refocusing monetary/fiscal policy-mix (Bibow 2013). Among others, monetary authorities must accept that the optimal monetary policy response to idiosyncratic shocks is to do nothing, leaving the task to national fiscal policies (Lane 2000). Of course, once fiscal policy is restricted to country-specific shocks, it may hard to argue in favour of pure inflation targeting on the part of monetary authorities (Fitoussi and Saraceno 2013). By no means, precise coordination of the both policies is needed here. Unfortunately, as it will be described in the next section, due to many factors, the coordination left lot to be desired.

The greatest challenge stems from the observation that not all EMU countries are able to fulfil the convergence criteria on the permanent basis; and this will probably the case for years to come. Different speeds of fiscal consolidation will result in growing divergence of business cycles. Therefore, there is a need for re-launching of the convergence process not only among the new EU member states, but also among countries that have already adopted the euro (Eijffinger and Hoogduin 2012).

4. Coordination between the ECB and fiscal policies

4.1. Coordination of monetary and fiscal policies – approaches, levels and importance

Taking into account importance of the monetary-fiscal coordination, before discussing specific issues connect with interactions between the ECB and other policymakers from the EU

countries, it is purposeful to present main topic and definitions connected with the coordination. It is even more justified as within the economic mainstream monetary and fiscal policies were for quite a long time perceived as separable undertakings¹.

In the monetarist-Keynesian debate, economists generally agreed that fiscal policy has an impact on price level only if the budget deficit is financed by printing money. If it is financed by bond issue, the prices remain unchanged and both policies are in principle autonomous. Such a split seemed natural – monetary and fiscal authorities are different entities with different instruments, goals and preferences. In 1981 Sargent and Wallace burst in a way the bubble on this dichotomy, arguing that neither policy is conducted in a vacuum. It may be appropriate to think of monetary and fiscal policy as separate ventures, but the crucial thing is to understand that the two interact: monetary policy actions have repercussions for fiscal policy settings and vice versa (Bhattacharya and Haslag, 1999).

Sargent and Wallace (1981) in their “unpleasant arithmetic” proved that both monetary and fiscal policies interact within a single, unified government budget constraint. They showed that if the fiscal authorities embark on the path of unsustainable deficits, the central bank might eventually be forced to print money (and inflate therefore) to fund the deficits. Then, deficits financed by bonds issue ultimately also bring inflation. Moreover, if expectations are rational, the public realizes that the government is on such a dangerous path, and it will expect inflation to increase. As a result, the increased issue of bonds leads to an immediate increase of the inflation rate. In other words, Sargent and Wallace argue that to such extent that the path of the government’s deficits is predetermined and unsustainable, the monetary policy and the price level are no longer exogenous to it (Lambertini and Rovelli, 2002).

Consequently, fiscal policy may limit the central bank’s ability to maintain price stability. The monetary authority, sooner or later, will be forced to finance budget deficits with negative consequences for price level. Thus, it is clear that to achieve price stability both

¹It must be stressed that at the same time interdependencies and linkages between the both policies were well discerned and understood by heterodox economists.

monetary and fiscal policies have to be consistent. The lack of consistency will result in suboptimal states of economy. In order to avoid potential disturbances, the coordination of monetary and fiscal actions is necessary.

Sargent and Wallace perceived coordination as a device for providing optimal policy-mix. Such approach was rather common in the early 1980s. However, coordination was not clearly defined in the papers considering this problem. Most often it was identified just with mutual consistence of monetary and fiscal policy, being conducive to policy goals achievement (e.g. Blinder, 1982).

Unpleasant arithmetic has shown forcibly interdependence of monetary and fiscal policy and initiated within the mainstream numerous studies of monetary–fiscal interaction (see e.g. Alesina and Tabellini, 1987; van Aarle et al. 1995; Dotsey 1996; Tabellini, 1986). What characteristic, analysis was conducted rather from a central bank point of view – fiscal policy was perceived mainly as a potential disruptive factor, constituting obstacle for effective monetary policy and disinflation processes. It was a natural consequence of prevailing within the mainstream and already mentioned devotion to price stability. Thus, in described models it was the fiscal authority which had to give in. Situation of too contractionary or too expansive monetary policy and necessity of adjustments on the side of a central bank were hardly considered.

By restoring intertemporal budget constraint Sargent and Wallace's theory presented direct influence of fiscal factors on the price level. But the authors and their successors stressed also that fiscal policy may as well have indirect impact on prices. High nominal unindexed debt places pressure on the central bank to unleash surprise inflation, in order to erode the real value of the debt. Even more indirect impact of fiscal policy is also possible - via its influence on the state of real economy (output, real interest rates). All these factors might interfere with price stability (Lane, 2002). To maintain this stability cooperation between the two entities is needed.

Ironically, with a better understanding of importance of monetary and fiscal interactions for price stability, unfavourable policy-mix negative occurred in many countries. Even, more ironically, independence of central banks, perceived by mainstream economists as a

main device for this problem, additionally deteriorated relations between monetary and fiscal policies, sealing separation of the two policymakers.

It was argued by supporters of the New Consensus Monetary Policy that the more independent central bank is, the less it will be under political influence (public choice argument) and the less it can be forced to finance budget deficits (what was treated as tantamount to harmful inflationary pressure). Moreover, independence was also perceived as a useful tool for overcoming time-inconsistency problem (Eijffinger and DeHaan, 1996). Therefore, countries with independent central bank have lower levels of inflation than countries in which central banks are under the direct control of the government.

However, there is also the other side of the coin. First, there are of course doubts whether price stability should be treated with such dogmatism. Second, an independent central bank may weaken relation with fiscal authorities. Potential lack of coordination will probably result in a suboptimal economic performance, so it will influence negatively results of economic policy (also with reference to price level). These problems may stem from one of the three causes (or combination of them) (Blinder, 1982): (1) the fiscal and monetary authorities might have different objectives; (2) the two authorities might have different opinions about the likely effects of fiscal and/or monetary policy actions on the economy (they may adhere to different economic theories) and (3) the two authorities might make different forecasts of the likely state of the economy in the absence of policy interventions. As a result, coordination is weak, and none of the policymakers achieve their target.

A situation, where the government and the central bank do not cooperate and consequences of this, has been examined in numerous papers (Nordhaus 1994) Andersen and Schneider 1986, Frankel 1998, Petit 1989, Petit and Hughes-Hallet 1990, Agell and Calmfors 1995, Debelle 1996, Leitemo 2002, Dixit and Lambertini 2002). In many of them, game-theory approach was applied as a particularly useful tool. Regardless of the assumptions, concerning information, time dimension or a type of the game (Stackelberg or Nash), almost all of these models show that non-cooperative behaviour leads to suboptimal states of the economy and increases variability of price and output levels .

Thus, central bank independence fuels coordination problem. As Andersen and Schneider (1986) point out, “when we have two independent authorities, who act in their own selfish interest, then we quite often observe a conflict over the “right” policy direction. This effect should be kept in mind when quite often the argument is put forward that an independent monetary authority should be created”.

Potential effects of the struggle between independent central bank and fiscal authority over economic policy and the need for credibility accountability of the policymakers are probably the most important reasons, why coordination is so important (Blackburn and Christensen 1989). It does not exhaust the subject, however. Among many other reasons, the problem of target-instrument approach to formulating economic policy and financial stability should be mentioned.

As Blinder (1982) remarks, the traditional targets and instruments approach of Tinbergen and Theil provides a useful framework for thinking about policy coordination, because the coordination problem is basically the one of an effective shortage of instruments. If the policymaker would have enough instruments, the need for coordination would not be so important. But in the real world, the likelihood that we have surplus instruments (compared to numbers of policy goals) is very small. There may be more goals than it is traditionally assumed and the instruments themselves may be targets. Additionally, time dimension (and time-lags connected with it) should be taken into consideration. But the most embarrassing problem here is the uncertainty. For example, according to Blinder (1982), policymakers may feel less uncertain about the effects of particular monetary-fiscal combinations than they do about the effects of individual instruments used in isolation. If so, coordination then becomes much more critical for accomplishing policy targets.

Approach provided by Tinbergen is still in use. It is, however, no longer appropriate to modern institutional conditions. Better conception, though also criticized, appears to be the “assignment”, suggested by Robert Mundell (1962). According to his solution, every instrument should be linked to this target, which it influences the most. The assignment fails, when policymakers have not enough instruments. It may lead to the so-called situation of “one-armed policymaker”. This situation, corresponding with reality of economic policy in many

countries, raises clearly the question of coordination. Cooperation of monetary and fiscal authorities may limit problems connected with the shortage of policy instruments.

Finally, one should look beyond traditional goals of monetary policy and pay also attention to financial stability, which, in face of more and more frequent and damages financial crises of last decades – especially the global financial crisis of 2007-2010 – has become one of the most often discussed questions, by both economists and politicians. It is commonly agreed, that coordination of monetary and fiscal policy is a way to maintain financial stability, with all benefits it brings or, at the worst case scenario, to speed up the process of restoring stability in the financial system. The lack of coordination however, is, by no means, one of macroeconomic factors, increasing instability of financial systems. What important it refers to both monetary and fiscal policies, as potential failures and wrong decision may occur at any of the policymakers and the both considered domains of economic policy may interfere with stability.

Thus, as it was already mentioned, coordination of monetary and fiscal policy may be treated as the necessary condition for achieving economic policy goals. The crucial question then is how to provide coordination of monetary and fiscal actions. Institutional solutions approved in individual countries are rather diverse. It was commonly argued in the mainstream economics that in developed countries with liquid and effective financial market, coordination is provided by this market itself. Market forces are the main mechanism, forcing the policymakers to coordinate its operations. Therefore, there is no need for explicit policy coordination and clear separation of policymakers' responsibilities is sufficient (Bennet and Loayza 2000, Laurens and de la Piedra 1998).

Such approach, however, proved to be false. Moreover, the problem has been even more complicated in countries, like the EU new member countries, with underdeveloped financial market, where explicit and strict coordination (of policies, of particular instruments and information as well) is required. Situations becomes even much complicated, when one considers coordination not only on the domestic, but also on the supranational level. That is the case of the euro zone, where exists one dominant monetary authority – the ECB, which has to interact with diverse national fiscal policies.

In the next part of the section we consider the coordination as the process through which two authorities, namely the central bank and the government (identified usually with the fiscal authority), negotiate their strategies, also creates an environment, in which these authorities may effectively conduct their policies. It is to-player game, but with reference to interactions between the ECB (and its policy) and fiscal policies of the euro zone it converts into multiplayer game.

Apart of the number of agents involved, coordination may be considered with reference to three areas. The first one concerns institutions (policymakers), the second – goals and the third – instruments. The institutional plane includes relationship between agents responsible for conducting monetary and fiscal policies – the ECB, national central banks (especially in those new member states which are not members of the euro area) and governments. They are twofold – supranational and domestic. Interactions in this area depend mostly on the level of independence of individual policymakers. This, in turns, is a consequence of specific, domestic institutional, legal and customary frameworks, as well, as of the EU acts and regulation. It must be stressed that monetary policy is unified in the euro zone, but still there are new member countries without the common currency, with separate monetary policy. At the same time, all the national fiscal policies are diverse.

With institutional plane are strictly connected the aims of considered policies. Monetary and fiscal authorities usually have different aims (what implies that coordination perhaps should start already on the stage of defining those goals) what may contribute to quarrels and weaker economic performance. It must be stressed again that in the mainstream economics attention was rather paid to potential harmful influence of fiscal factors on monetary stability. It has been the consequence of priority given to the aim of price stability (typical for the New Consensus Monetary Policy). After the global financial crisis of 2007, however, the aim of financial stability became much more important. Thus, we discuss potential reformulation of the economic policy aims, as well as changes in their hierarchy.

Effectiveness of monetary and fiscal policies depends also on linkages between their instruments. Every policy has its own range of tools, differently (and with different time lags)

influencing the economy. It might happen that instruments of a given policy would have neutralize or reinforce excessively impact of the other policy. It is likely, because the linkages are very close here. Thus, we already discussed potential impact of non-typical monetary policy instruments and their short and long term effects. The issue is even more complicated, when one takes into account deflationary pressure and problems connected with the public debt burden. Coordination between monetary and fiscal policy – on the both domestic and supranational levels – is without any doubts crucial for achieving goals of the economic policy and thus very beneficial to the economy. The lack of coordination will result in non-optimal policy mix, especially in harmful, post-crisis environment, with rather insufficient regulations and strong political tensions between countries involved.

4.2. Institutional design of the EBC and its policy and its influence on policy coordination – some insights

The very construction and way of functioning of the ECB have raised many doubt since this the institution started to operate. There is also, as it was already mentioned, kind of asymmetry between the monetary and fiscal authorities considered. On the one side there functions a single, solidly established in the EU law (even in main union Treaties), with very high level of independence and, at the same time, with questionable accountability and the authorities not elected by the society (see e.g. De Haan 1997, De Grauwe 2002, Fitoussi and Creel 2002). Thus, by its very fundamentals (and also by perception and attitude of politicians and economists) the ECB is crucial agent and policymakers within the euro zone².

On the second hand – one may observe several dozen national fiscal policies, realized by agents coming under political pressure and democratic procedures, with different institutional and operational background, different goals and different specific limits (resulting

² Considering it in categories of game theory, the ECB is always leader in Stackelberg type game.

e.g. from historical record of public debt, cultural differences or random shocks). Their unification through 'convergence criteria' turned to be ineffective (if one assumes their fulfilment and maintaining is purposeful).

Under such conditions, both discussed domains of economic policy are inconsistent and often ineffective. The autonomous monetary policy of the ECB, built and conducted with assumption "one size fit all" (that, as it was described in the section 3., is far from reality), focuses just on price stability, whereas fiscal authorities in individual countries struggle with overcoming negative tendencies in the real economy and growing imbalances within the public finance.

Thus, mentioned already in the paper potential changes in the monetary policy of the ECB would be welcome, but the problem is, as it seems, deeper and stems from institutional arrangements³. As Arestis and Sawyer (2011) argue, the design of the independent European Central Bank precluded to a large degree the necessary coordination between fiscal and monetary policy, and also disabled the central banking system from providing sufficient support to national governments and their budget deficits⁴.

The problem comes down to adequate level of the ECB autonomy. Nowadays still prevails strongly the view on benefits from central bank independence, but it not necessarily means it should be as high as it is with reference to the European monetary authority. Quite opposite, according to some authors, the level of independence should be significantly reduced. According to Sawyer (2011), independence of the ECB should be ended and the institution should be integrated into a set of democratic policy-making procedures. The ECB would retain charge of operational issues (e.g. the implementation of interest rate decisions), but would have to coordinate its decisions with other policymakers. Such reformulation of

³ Jaquet and Pisani-Ferry (2001) from the broader point of view talk about "lack of culture of coordination" within the EMU.

⁴ It must be noticed that within the mainstream macroeconomics, according to theories described in the section 4.1., precluding the central bank from budget deficit financing has been common and one of the most important reasons for central bank independence.

institutional arrangements would enable policy coordination which should lead in turn to more effective policy making.

Similar view presents Arestis (2012, 2014). He argues that the ECB should be accountable before the European Parliament and at the same should be ready to take instructions from European bodies (e.g. ECOFIN). Arestis stresses also that coordination with fiscal side should be explicitly involved into the statutes of the ECB.

Both authors, in several publications go even further, arguing that the ECB should on all occasions stand ready to act as 'lender of last resort'. Doing this, the institution should always accept the bonds and bills issued by national governments (within EMU) as part of open market operations in the way in which a national central bank would always accept the bonds of its government (compare section 2.). It should also stand ready to directly lend to national governments (in exchange for bonds in euros of that government) if required. In other words, the ECB should support the fiscal policies determined by individual national governments of EMU, whether or not those policies involve deficits of which the ECB disapproves (Arestis 2014; Arestis and Sawyer 2006, 2011; Sawyer 2011, 2013).

There are of course doubts whether such are politically feasible and whether such moves would not have caused inflation through overissuance, made in order to cover 'excessive' expenditures of the government. But still, for instance program of quantitative easing, addressing commercial banks, also is connected with additional issuance of money. In this context it is worthy to stress that central bank independence is considered with reference its relations with government. Meanwhile, very important, but usually omitted question is (in)dependence of the monetary authorities with regards to the financial markets (Blinder 1998).

Regardless of independence, coordination between the ECB activities and fiscal policies within the euro zone is also hampered by (as it was already indicated) by focusing only on nominal side of the economy and strong devotion to price stability, presented by the monetary authority of the euro zone⁵. Such attitude, rooted deeply in monetarist and new classical

⁵ However, after the crisis, there are visible some signs of relaxing strict 'monetarist' approach presented earlier by the ECB.

theories (like presented unpleasant monetarist arithmetic and also time-inconsistency hypothesis, credibility hypothesis, thesis on policy ineffectiveness and, of course quantity theory of money), implies that the most important contribution of central bank into economic stability and welfare is to fight inflation and maintain stable prices, as it will foster economic growth.

Dogmatic understanding and realization of price stability goal makes, however, monetary policy highly inflexible. The risk exist here that central bank becomes so-called 'inflation nutter', i. e. its sacrifice ratio will be extremely high. In other words, the central bank will be ready to even slow the pace of economic growth in order to bring inflation so close to zero, as possible. Such approach not only may be harmful to economic activity, but also neglects threats connected with deflation and may push the economy towards zero bound problem, described in the section 2. Moreover, as it was also, stressed, monetary stability itself cannot guarantee that in a given economy financial stability is achieved (and vice versa), as the both targets are complementary.

Therefore, perhaps formal reformulation (or supplement) of the ECB statutory goal, especially leading to including – at least partially – above-mentioned suggestions also would be helpful for better consistency of the policy mix within euro zone. It is not, however, only the case of change in numerical inflation target, but rather more thorough change in the overall philosophy of the ECB policy. The goal should by no means reflect complexity of the post crisis reality and take into account that the problem of 'monetary disorder' is not only the problem of unstable prices⁶.

Such proposals were made, among others, in The Deepening Crisis.. (2014), as well as by Bibow (2005, 2007), Hein and Detzer (2014), Hein and Truger (2004) and Sawyer (2013). The latter author stresses that the prime objective of the ECB (and other central banks as

⁶Another topic here is problem of asset prices, as the price index used by the ECB (and most central banks) does not involve this category thus, the central banks are not responding on dangerous tendencies emerging in various financial assets markets.

well) should become the pursuit of financial stability. He justifies such suggestion with relative frequency of financial instability and the significant costs associated with financial crisis, which are several orders of magnitude greater than any costs of inflation⁷.

All indicated actions refer to the ECB and various aspects of its functioning. One should, however, remember, that some adjustments are also possible, and advisable, on the fiscal side. Among them, worth noticing is the idea of single fiscal authority in the euro zone (see Szeląg 2008).

5. ECB activity and the New Member States – selected issues

5.1. Changes in voting rules in the ECB's Governing Council and its impact on willingness to join the euro zone by the New Member States

Distinct to some extent, but very interesting and widely discussed (by the both politicians and economists), issue connected with the policies of the ECB is their impact on the New Member States (especially those remaining outside the euro zone). The topic is very vast and complex. Thus, we focus only on two specific problems – new voting mechanism within the ECB and consequences, which creates for the ECB and the NMS establishment of the Banking Union⁸.

Very important, but often underestimated or even omitted in the discussions conducted in those new member states, who have not so far entered the euro zone, is the problem of voting mechanism within the ECB. It applies first and foremost to mechanisms of votes adopted in the European Central Bank's Governing Council, as it is the highest decision-making body there, responsible for setting interest rates and conducting monetary policy.

⁷ It is of course problem of scale and memory. Devastating scale of the global financial crisis is still fresh and perhaps what we observed was only one stage of the crisis, while there was no hyperinflation in the euro zone countries recently.

⁸ It must be stressed that very interesting issue of the influence of monetary policy on the exchange rate regimes of the NMS is beyond the scope of this deliverable.

The issue is even more important, as the accession of Lithuania to the euro area on 1 January 2015 triggered a system under which National Central Bank Governors take turns holding voting rights on the Governing Council⁹. New arrangements introduced the rotation system of voting rights to the members of the Governing Council. Official reason for the changes was ensuring that the body remained able to act swiftly and decisively, with continuous expansion of the euro zone.

In details, there are three categories of votes. The first one consists of 6 members of Executive Board with permanent vote. Such treatment of the members' votes did not change.

Two subsequent categories are the aftermath of special division made with reference to the euro zone countries. Namely the countries are divided into groups according to the size of their economies and their financial sectors. To determine which national central bank Governor belongs to which group, a special ranking was established. The Governors from countries ranked first to fifth – currently, Germany, France, Italy, Spain and the Netherlands – share four voting rights. They may be labelled as the “strong” group. All others countries (“weak” group”) share 11 voting rights. The Governors take turns using the rights on a monthly rotation¹⁰. Moreover, as it will be further described, when the number of euro zone

⁹ According to European Union treaties, the rotation system had to be implemented as soon as the number of Governors exceeded 18, which was exactly the case on 1 January 2015 when Lithuania joined the euro zone.

¹⁰ The ECB (2015) informs, the current rotation system is similar to the one used by the Federal Open Market Committee (FOMC) of the FED. The FOMC has 12 voting members, 7 of whom are members of the Board of Governors and hold permanent voting rights, similarly to the ECB's Executive Board members on the Governing Council. The President of the New York Fed has a permanent voting right, the Presidents of the Federal Reserve Banks of Chicago and Cleveland vote every other year and the Presidents of the other nine Federal Reserve Districts vote every third year. Unlike the Fed's yearly rotation, the voting rights for the members of the ECB's Governing Council rotate every month.

members will exceed subsequent thresholds, the rotation system will be adjusted adequately¹¹. Namely, if the euro zone expands still further, the five big states will keep their four votes but the 11 remaining ones will be shared among ever more countries. If the euro area ever reaches 22 members (so-called second stage of reforms), the second group will be split, with 11 middling countries sharing eight votes whereas the smallest six will have only three (see table 1).

It must be said that initially, change in voting mechanism was thought to come in force with the entry to the euro area of the 16th member. With approaching the threshold, however some doubts were increasing¹². The decision of 21st March 2003, however, gave the Council of Governors (acting by a two thirds majority), the possibility of deferring the implementation of the new system until the entry of the 19th member of the euro zone¹³. Basing on this decision, the Council of Governors decided on 18th December 2008 to use the possibility of deferring. Hence although the new system should have entered into force with the accession of Slovakia, the 16th euro zone member on 1st January 2009 it would only become effective on the integration of Lithuania on 1st January 2015.

¹¹ The current rotation of voting rights in the Governing Council is presented in details e.g. in ECB (2009)

¹² There were issues connected with simple arithmetic: in the euro area comprising between 16 and 18 members the frequency of the vote by countries in the group of "strong" would have been slightly lower than that of the countries in the "weak" group. Such situation obviously troubled the former ones.

¹³ More precisely, on 21 March 2003 the European Council amended Article 10.2 of the statutes of the Eurosystem in order to allow the establishment of a system of rotation in the ECB Governing Council. The amended article provided the Governing Council with some room for manoeuvre. Namely, according to this that the rotation system could be introduced from the entry of the 16th member into the euro zone and at the latest upon the entry of the 19th member.

Table 1. Rotation system of voting rights within the Council of the Governors (without the votes of the ECB Board members)

		Number of Governors within the Council							
		19	20	21	22	23	24	25	26
Group 1	Number	5	5	5	5	5	5	5	5
	Votes	4	4	4	4	4	4	4	4
	Frequency	80%	80%	80%	80%	80%	80%	80%	80%
Group 2	Number	14	15	16	11	12	12	13	13
	Votes	11	11	11	8	8	8	8	8
	Frequency	79%	73%	69%	73%	67%	67%	62%	62%
Group 3	Number	-	-	-	6	6	7	7	8
	Votes				3	3	3	3	3
	Frequency				50%	50%	43%	43%	38%

Source: ECB (2009).

But the problem has become even more serious, given the current uncertain economic and political situation and growing divergences of interest between the euro area members EU (and also between the euro zone and other members of the EU). In principle, there are different views on methods and general direction of the functioning of the ECB. For instance, some countries argue that the ECB should take radical action to prevent the European economy from deflation, while the other are strongly against such actions. Under mechanism of rotation situation could occur, when a country especially interested in a given decision, has no vote right at the moment. In turn, taking particular decision that is neglected by a member state that has no vote in this round of the voting by the ECB's governing council, could undermine the ECB's reputation and its legitimacy.

What is characteristic here, objections were formulated by the both group of countries – the strong (mainly Germany) and the weak (with Ireland especially active in expressing its reservations). In details, Germany claims that – as the largest economy in the euro area and the largest contributor to the ECB's capital – must necessarily take part in the votes deciding the monetary policy of the euro zone. Moreover, lack of permanent voice was perceived as a loss of prestige. Thus, the German insist that in situation when voting rotation is hold in a

given round, its Governor should have at least a veto. This veto would also be justified by the principle that you should be responsible only for your own decisions. As it seems, the last argument might be put forward by any of the euro zone countries.

The “weak” countries criticize rotation system of voting right from different positions. First, they stress that new rules do not significantly – if at all – weaken the position of the “strong” countries. The rotation system does not rather give them any extra weight. Moreover, even with rotation, the more powerful countries are in better position, as they have usually a member in the board, who is allowed to vote every time¹⁴.

But the main argument of the countries from the second group (and in the future from the group 2. and 3. – see table 1.) is that the rotation system in existing shape as well as the fixed schedule of its changes sanctions the lack of equality between the euro zone’s countries. The representatives of those countries insist even that the myth of equality between the countries of the euro zone is finished, as the introduction of a vote rotation system favors explicitly the most powerful countries, while the weaker ones are condemned to be countries of “second category”. Moreover, as the euro zone expands to 22 members, the creation of a third group (see table 1.) will result in further dilution of the voting rights of second and third groups. At the same time, the “strong” group will still continue to vote 80% of the time¹⁵.

Argument of the both groups of countries are understood. The stronger ones, in natural way, bear greater burden of costs and adjustments, and their responsibility for the overall EU is obviously higher. Moreover, those vey countries are usually first to call out to the blackboard in situation of economic and political tensions. On the other hand, it is hard to

¹⁴ A simple comparison shows that the current system benefits the members of the ECB Executive Board. They have now 28.6% of the voting rights (6/21), while the old system would have given them “only” 24% (6/25). Such advantage however, would diminish with accession another country to the euro area.

¹⁵ The likelihood that the euro zone will soon include 21 members is rather low, and the probability of exceeding 22 members even lower.

speak of common interest and unified and consolidated European union in a situation, where there are several categories of countries.

The second problem refers also (or even mainly) to those of new member States, who, like Poland, did not enter the euro zone. To date, all the countries of Central and Eastern Europe (CEE) that have not yet adopted the euro have abandoned a timetable for joining the euro zone¹⁶. Moreover, the confidence in the common currency altogether with will to introduce it, decreases in those countries among citizens, economists and even politicians¹⁷.

Such situation as the aftermath of both economic and political factors. As regards to the first group, many of the Central and East European countries (especially Poland) have benefited from the depreciation of their currencies against the euro during the global financial crisis and recession that followed it (see e.g. Janc, Jurek and Marszałek 2013). They have thus understood that entering the euro area would not just bring them benefits, but could also be connected with significant costs. In other words, it has been widely understood that the euro is not panacea for economic problems of the poorer countries. Quite opposite, it might generate new problems and at the same time not help to solve the old ones.

With reference to political factors, there are worries about future shape of the euro zone and political directions and will to improve situation of the area. There are observed numerous political tensions and conflicts of interest. These factors, combined with uncertainty about Greece future in the euro zone (projected on the future of the whole area and common currency) make decision on postponing the euro zone accession politically reasonable – at least until situation becomes more clear.

Thus, diminishing, in a way, share in decision-making process in the Governing Council may be another factor that limits willingness to join the euro zone. It is likely, the more

¹⁶ The only exception is Romania, which has proposed 2019 for adopting common currency.

¹⁷ In June of 2015, 54% of the Poles considered adoption the euro in Poland as wrong decision, and 68% – that such move would have deteriorated their situation (TNS, 2015). The number of opponents of replacing the zloty by the euro in Poland increased from only 22% in January of 2007 to 68% in the end of November of 2014 (CBOS 2014)

the more pro-euro politicians mention, as one of decisive arguments in favour of euro, that being the member of euro zone is equal with strengthening the position within the EU and full access to decisive process within the whole EU and its individual bodies.

Meanwhile, it would be hard to confirm such statement while at the same time explaining that only certain members could participate in its decision-making. Especially, when one takes into account that the potential new members of the euro zone would be – in the best case – counted to Group 2. Losing of independence in the monetary policy (with all benefits of it, clearly visible in the last years) might be hard to sacrifice, given that participation in the common monetary policy would be in a way invalid. Thus, for the new member states still being outside the euro zone, some changes of the rotation mechanism could be positive signal from the “hard core” of the EU that they are really welcome.

5.2. New responsibilities of the ECB in the Banking Union and its consequences for interest policy

With the global financial crisis that started in the 2008, economic crisis being its consequence, and also intensification of the euro crisis in early 2010, the tasks of the ECB tasks have been significantly extended – partly at its own initiative, and partly by legislation adopted by the EU member states – in relation to monetary policy and beyond. Especially significant rise in responsibilities and tasks of the ECB was connected with establishment of the Banking Union.

The Banking Union came into force on 4 November 2014, following difficult political negotiations, as well as agreement between the Council and the European Parliament. The purpose of the Banking Union was to ensure protection of national budgets against the failure of financial institutions, as has been the case during the global financial crisis (Eliot 2002).

The euro area and other countries of the EU have agreed that, for the most part, the ECB would be responsible for overseeing their financial institutions to ensure they do not run into difficulties. In case problems do arise, the existence of the Single Resolution Board and a Single Resolution Fund would ensure that such a bank is restructured in an ordered way, so as to prevent the spread of the crisis onto other banks and countries. To this end, the ECB

became the dominant centralised supervisory institution to ensure compliance with the EU banking rules¹⁸.

Among the benefits of the Banking Union are usually listed (Goyal et al 2013):

- deepening the single market for financial services and making it more effective;
- overcoming the current fragmentation of financial markets in Europe;
- overcoming the “impossible trinity” problem;
- internalizing externalities;
- reduce the risk of capture of regulators by the financial industry.
- restoring the effectiveness of the ECB’s monetary policy.

Taking into consideration the role of the ECB as the monetary authority in the euro area, the latter factor seems to be of special importance. The monetary policy of every central bank is primarily conducted by nudging the key financial institutions and markets to change the price and availability of credit. In other words, the central bank uses various monetary transmission channels, by which it moves its impulses to the financial sector, and finally, by changes in conditions of investing and savings, into the level of its final goal. Thus, policy it is absolutely crucial for effectiveness of monetary that the financial sector should be sound and stable. Only under such circumstances, the central bank is able to achieve its inflation targets (dominating within the central banks worldwide recently). Then, as it was already mentioned, financial stability is necessary for monetary stability¹⁹.

¹⁸ In the end, certain limitations of the ECB oversight were introduced. Namely, only those financial institutions with a balance sheet of which exceeded €30 billion threshold and/or account for more than one of fifth of the country’s GDP would be removed from national regulators and placed under the wings of the ECB.

¹⁹ On the other hand, also financial institutions need stable prices to act effectively. It is however, worth noticing, that interdependencies between those two types of stability are ambiguous. For instance, Blot et al (2015) did not identified any positive correlation between monetary and financial stability.

Recent crisis, however, caused turmoil within the financial sectors in Europe. It concerned first of all banking systems. Banks dominate in financial systems of the EU, thus are extremely important in the monetary transmission. Unfortunately, in the aftermath of the crises, banks have faced very diverse conditions. Most banks are still suffering from the after-effects of the global financial crisis. As a consequence, the banks are rather reluctant to lend, even to creditworthy businesses, except at high rates. Moreover, they have had to adjust to a wide range of regulatory changes, many of which are not yet fully defined. This also, altogether with high degree of uncertainty, causes that the banks are rather unwilling to expand loan activity. Under such circumstances, conducting the monetary policy by the ECB is significantly hampered²⁰.

The Banking Union, by restoring balance in individual banks, as well as within the banking sectors in the whole EU could thus facilitate conducting the monetary policy. It could help restore normal banking operations and make ECB actions easier. Thus, the “macroprudential” supervision of the ECB becomes, in a sense, instrument improving the effectiveness of the monetary policy.

With the Banking Union and the role of the ECB in it, are, however, linked also some doubts. First, there is danger that the ECB might devote less attention to the supervision of a small country's financial system than a national supervisor. This could happen if the ECB were to focus supervision rather on large groups at the expense of preventing local banking crises. The bank may recognize them as not posing a systemic threat to Europe as a whole and thus being of minor importance.

Second, there is possibility that the Banking Union would give rise to moral hazard, as it would combine a common fiscal protection with national resolution authorities. The latter ones may not be as solid and effective, as they would be if fiscal losses were borne at the national level. Furthermore, national authorities would also retain other policy instruments

²⁰ Moreover, earlier ECB's action, aimed at boosting process of bank' lending, were not, in principle successful.

(for example, the power to tax and subsidize, and housing policies) which influence the likelihood and fiscal costs of banking crises even in the presence of a very powerful and competent joint supervisor.

Special group of problems concerns relations between realization supervisory tasks by the ECB and its tasks in the field of monetary policy. In other words, there is a problem of mentioned already in the paper relationships between the goal of monetary and financial stability. The ECB, as a supervisor of banks might bring it into conflict with its main objective of price stability. Particularly, it might be tempted to lower interest rates or to loosen conditions for bank access to liquidity in order to stabilize the banking sector. This, in turn, might lead to easier terms of credit thereby interfering with the EC's goal of monetary policy, i.e. stabilizing inflation rate. As Masciandaro and Quintyn (2009) state: "the more the central bank is involved in supervision, the greater the risks of conflict among different goals".

Still, another trade-off could may occur when the ECB perceives inflation target as its priority. Thus, reacting on potential threats to price stability it might decide on tightening the monetary policy. In such case, the higher interest rate, necessary from the price stability point of view could enhance the fragility of some banks whose assets are indexed on market rates. The impact could therefore challenge the supervisory function of the central bank.

In both situations, there are in fact the two contradictory goals of the ECB and there is no explicitly stated, which is the primary one. It may negatively influence credibility of monetary policy decisions. There may also occur problems with accountability, if the goal of monetary policy will be subordinated to bailouts of large financial institution.

Additional problems with the ECB as supervisor and mentioned conflict of goals arise, when the perspective of the new member states (especially those, who did not adopted euro yet) is taken. Those countries are also bank dominated (e.g. in Poland bank assets constitute almost 70% of total assets of the financial sector), thus, these institutions are also very important in the monetary policy transmission. Given this, the Banking Union and activity of the ECB in the field of micro and macroprudential supervision also may influence situation in those countries.

The impact may however vary. First, it will be different for countries who decide to join The Banking Union²¹. Potential members would worry that the proposed single supervisory mechanism might pay insufficient attention to the stability of their domestic banking systems. They also may be concerned that the Banking Union membership might lead to fiscal liabilities caused by poor policies in other countries. As Kluza et al. (2012) put it „the project of the Banking Union was rather unwelcome in our [CEEs – P.M.] countries. The cause is sad paradox consisting in that the Banking Union may increase stability of the European banking system with, to some extent, costs of decrease of banking systems stability in our region”.

Next, there are views according to which joining the Banking Union is equal with loss of control on the domestic banking sector, what would have been unfavourable in the case of diverse interest of the country and the ECB. Question is, however, not clear. In Poland, for instance, under supervisor of the ECB officially would be only PKO BP that fulfils criteria of SIFI and two others, the largest in Poland (Pekao SA and BZ WBK SA). Still, the decisions of the EBC would have indirect impact on rest of banks. Conflict of interests might occur then. Moreover, being outside the Banking Union is in fact illusion, as most of the largest banks is already controlled by theory foreign owners. Among them are huge banks from the euro zone, under supervision of the ECB (like e.g. Unicredit, Santander, Commerzbank, ING or BCPE)²².

Another problem is connected with the interest rates of the ECB, single in the EU (similarly to every monetary union). Assume situation, when, for instance, Poland joined already the euro area and its real estate market flourishes, while in Germany – is in recession. The ECB take into account situation in the most important European economy and cuts interest

²¹ The member states outside the euro zone can, but are not obliged to do this. There are, however, some benefits of the membership in the Banking Union that are not allowed for members remaining outside the euro zone.

²² Apart of losing control there is even more serious problem – namely, the Banking Union does not solve one of the structural problems: dominance of large banks, often conducting very risky operations. Instead, the Banking Union aims at helping them (Kluza et al 2012).

rates. It results in speculative bubble in the Polish real estate market. Then, the bubble bursts and crisis occurs in Poland. The Banking Union will not be able to prevent this situation. It would be however possible for the domestic supervisor. This agent, knowing local specificity would be likely able to correct the ECB's policy. It can, for example, raise capital requirements, norms of liquidity or criteria of lending.

When the member state decides to stay outside the Banking Union, it may fear of situation in which domestic banks lose ground against their Eurozone-based competitors that will have potential access to recapitalisation from ESM resources. Under such circumstances, there might occur downward pressure for interest rates. Thus, in turn might be in contradiction with current phase of business cycle in this country.

6. Conclusion

Nominal interest rates are extremely low in the EMU. The ECB cannot lower them without reaching the zero lower bound. It can only support expansionary depreciation of the euro in order to boost export. Unconventional policies pursued by the ECB have lowered bank lending interest rates to the real economy, although these effects are not evenly distributed, what is especially eye-striking among peripheral economies. The ECB non-standard measures were aimed at supporting the effective transmission of monetary policy to the economy rather than at delivering additional direct monetary stimulus (Cour-Thimann and Winkler 2012). Moreover, European financial markets have become more fragmented, driving retail interest rates in stressed markets far above those in the core. This has impeded the flow of credit and undermined the transmission of monetary policy (European Commission, 2013).

Still, the ECB has the capabilities to use other than interest rate channel, as it can directly purchase public bonds, being a buyer of last resort. Nevertheless, in parallel to increased monetary policy interventions by the ECB, the EMU member states have also to undertake widespread reforms: i.e., the economic and institutional reforms at the national and European level. Another area of problems (but also potential changes) occurs, when one takes into account functioning of the Banking Union or new voting rotation within the ECB's Council of Governors.

Obviously, nobody expects that the one perfect solution exists here. There is no doubt, however, that for efficient coordination political consensus and will is needed, as well as proper legislation and institutional framework. Additionally, some issues deserve special emphasizing. First, coordination will not balance policy mistakes. Second, in many countries coordination is much more difficult, because of the another player in the game, i.e. debt management agency. Third, the problem is even more important, when one takes into account that within the EU, there function the euro zone countries and countries without the common currency. Fourth, the institutional frameworks of functioning of the euro zone, as well as the ECB itself are changing nowadays. Fifth, all characterized changes and processes pose special challenges for the new member states, especially to those remaining outside the euro zone. Their competitive position against the old members is still relatively worse.

7. References

- Abbassi, P., Linzert, T., (2011), *The effectiveness of monetary policy in steering money market rates during the recent financial crisis*, ECB Working Paper Series, No. 1328.
- Agell, J., L. Calmfors, G. Jonsson, (1995), *Fiscal policy when monetary policy is tied to the mast*, European Economic Review, No. 40.
- Ahearne, A., J. Gagnon, J. Haltmaier, S. Kamin, and others (2002), *Preventing Deflation: Lessons from Japan's Experiences in the 1990s*, Board of Governors, International Finance Discussion Paper No. 729.
- Alesina, A., G. Tabellini, (1987), *Rules and discretion with non-coordinated monetary and fiscal policy*, Economic Inquiry, vol. XXV, October.
- Allington, N.F.B., McCombie, J.S.L., Pike, M., (2011), *The Failure of the New Macroeconomic Consensus: From Non-Ergodicity to the Efficient Markets Hypothesis and Back Again*, International Journal of Public Policy, vol. 7, no. 1.
- Amirault, D., O'Reilly, B., (2001), *The zero bound on nominal interest rates: how important is it?*, Bank of Canada Working Papers, No. 6.
- Andersen, M, T. Schneider, (1986), *Coordination of Fiscal and Monetary Policy under Different Institutional Arrangements*, European Journal of Political Economy, February, pp. 182-196.

- Aquanno, S. M., (2014), *Contesting new monetary policy*, Contributions to Political Economy, Vol. 33, No. 1.
- Arestis, P., (2012), *Fiscal Policy: A Strong Macroeconomic Role*, Review of Keynesian Economics, Inaugural Issue, 1(1).
- Arestis, P., (2014), *Current and Future ECB Monetary Policy*, FESSUD Working Paper Series, No. 28.
- Arestis, P., McCauley, K, Sawyer, M., (2001), *An alternative stability and growth pact for*
- Arestis, P., Sawyer, M., (2005), *New Consensus Monetary Policy: an Appraisal*, in: Arestis, P., Baddeley, M., McCombie L. (eds.), *The New Monetary Policy. Implications and Relevance*, Edward Elgar, Cheltenham-Northampton.
- Arestis, P., Sawyer, M., (2006) *Macroeconomic policy and the European constitution*, in: Arestis, P., Sawyer, M., (eds), *Alternative Perspectives on Economic Policies in the European Union*, Basingstoke, Palgrave Macmillan.
- Arestis, P., Sawyer, M., (2011), *The design faults of the Economic and Monetary Union*,
- Bayoumi, T., Eichengreen B., (1997), *Shocking aspects of European monetary integration*, in: B. Eichengreen, *European monetary unification: theory, practice, and analysis*, The MIT Press, Cambridge-London.
- Benett, H., N. Loayza, (2000), *Policy Biases when the Monetary and Fiscal Authorities Have Different Objectives*, Central Bank of Chile Working Papers, No. 66.
- Bernanke B., (2002), *Deflation – making sure “it” doesn’t happen here*, BIS Review, No. 68/2002.
- Bernanke, B. Reinhart, V. R., (2014), *Conducting monetary policy at very low short-term interest rates*, American Economic Review, Vol. 94, No. 2.
- Bernanke, B., (2009), *Federal Reserve policies to ease credit and their implications for the Fed’s balance sheet*, *Speech to the National Press Club*, Washington, DC, 18 February, <http://www.federalreserve.gov/newsevents/speech/bernanke20090218a.htm>.
- Bernoeth, K., Fratzscher, M., König, P., (2014), *Weak inflation and threat of deflation in the euro area: limits of conventional monetary policy*, DIW Economic Bulletin, No. 5.

- Bhattacharya, J., J. Haslag, (1999), *Monetary policy arithmetic: some recent contributions*, Federal Reserve Bank of Dallas Economic and Financial Review, No. 3.
- Bibow, J., (2005), *Refocusing the ECB on Output Stabilization and Growth through Inflation Targeting*, The Levy Economics Institute Working Paper, no. 425.
- Bibow, J., (2007), *The ECB – How much of success story, really?*, in: Hein, E. (ed.), *European Integration in Crisis*, Metropolis Press, Marburg.
- Bibow, J., (2013), *At the crossroads: the euro and its central bank guardian (and saviour?)*, Cambridge Journal of Economics, Vol. 37, No. 3.
- Blackburn, K., M. Christensen, (1989), *Monetary Policy and Policy Credibility: Theories and Evidence*, Journal of Economic Literature, vol. XXVII.
- Blinder, A. (1982), *Issues in the Coordination of Monetary and Fiscal Policy*, in: *Monetary Policy Issues in the 1980s*, A Symposium Sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole.
- Blinder, A. (1998), *Central Banking in Theory and Practice*, MIT Press, Cambridge.
- Blinder, A. (1999), *Central bank credibility: Why do we care? How do we build it?* NBER Working Papers, No. 7101.
- Blot, C., Creel, J., Hubert, P., Labondance, F., Saraceno, F., (2015), *Assessing the link between price and financial stability*, Journal of Financial Stability, no. 16.
- Bowdler, C., Radia, A., (2012), *Unconventional monetary policy: the assessment*, Oxford Review of Economic Policy, Vol. 28, No. 4.
- Bryant, R. C., (1999), *Economic policy when the short-term nominal interest rate is stuck at the lower bound zero*, Brookings Discussion Papers in International Economics, No. 151.
- Buiter, W. H., Panigirtzoglou, N., (1999), *Liquidity traps: how to avoid them and how to escape them*, NBER Working Papers, No. W7245.
- Buiter, W., *Deflation: Prevention and Cure*, NBER Working Paper No. 9623.
- Cargill, T. F. (2001), *Monetary Policy, Deflation, and Economic History: Lessons for the Bank of Japan*, Monetary and Economic Studies (Special Edition).
- CBOS, (2014) *Euro acceptance*, Warsaw

- Clinton, K., (2009), *The 21st Century Neo-Wicksellian Monetary Order*, SBP Research Bulletin, vol. 5, no 1.
- Clouse, J., Henderson, D., Orphanides, A., Small, D., Tinsley, P., (2000), *Monetary policy when the nominal short-term interest rate is zero*, Federal Reserve Board of Governors International Finance and Economics Discussion Papers, No. 51.
- Cobham, D., (2012), *The past, present, and future of central banking*, Oxford Review of Economic Policy, Vol. 28, No. 4.
- Corden, W. M., (1994), *Economic policy, exchange rates, and the international system*, Oxford University Press, Oxford.
- Cour-Thimann, P., Winkler, B., (2012), *The ECB's non-standard monetary policy measures: the role of institutional factors and financial structure*, Oxford Review of Economic Policy, Vol. 28, No. 4.
- Cwik, T., Wieland, V., (2010), *Keynesian government spending multipliers and spillovers in the Euro area*, ECB Working Paper Series, No. 1267.
- Darby, M., (1984), *Some pleasant monetarist arithmetic*, Federal Reserve Bank of Minneapolis Quarterly Review, Spring.
- De Grauwe, P., (2012), *Economics of monetary union*, Oxford University Press, Oxford.
- De Grauwe, P., (2013), *The European Central Bank as lender of last resort in the government bond markets*, CESifo Economic Studies, Vol. 59, No. 3.
- De Haan, J., (1997), *The European Central Bank: Independence, accountability and strategy: A review*, Public Choice, No. 93.
- Debelle, G., (1996), *Central Bank Independence: A Free Lunch?* IMF Working Papers, No. 1/96.
- Di Giorgio, G., (2014), *Monetary policy challenges: how central banks changed their modus operandi*, Eurasian Economic Review, Vol. 4, No. 1.
- Dixit, A., L. Lambertini, (2002), *Fiscal Discretion Destroys Monetary Commitment*, Manuscript, Princeton University.
- Dotsey, M., (1996), *Some Not-So-Unpleasant Monetarist Arithmetic*, Federal Reserve Bank of Richmond Quarterly Review, vol. 82/4.

- Drazen, A., P. Masson (1994), *Credibility of Policy versus Credibility of Policymakers*, NBER Working Papers, No. 4440, pp. 1-30.
- ECB, (2009), Monthly Bulletin.
- Eijffinger, S. W., J. DeHaan (1996), *The political economy of central bank independence*, Princeton University, Princeton.
- Eijffinger, S., Hoogduin, L., (2012), *The European Central Bank in (the) crisis*, CESifo Group Munich, CESifo DICE Report, No. 1.
- Elliott, D. J., (2002), *Key Issues On European Banking Union Trade-Offs And Some Recommendations*, Global Economy & Development Brooking Working Paper 52
- EuroMemo Group, (2014), *The deepening divisions in Europe and the need for a radical alternative to EU policies*, transform! European journal for alternative thinking and political dialogue, http://www.transformnetwork.net/uploads/tx_news/EuroMemo2014_EN_04_02_2014.pdf.
- European Commission, (2013), *European Economic Forecast Autumn 2013*, European Economy, No. 7.
- Fischer S., (1996), *Why Are Central Banks Pursuing Long-Run Price Stability*, Federal Reserve Bank of Kansas City.
- Fitoussi, J.-P., Saraceno, F., (2013), *European economic governance: the Berlin–Washington Consensus*, Cambridge Journal of Economics, Vol. 37, No. 3.
- Fitoussi, J-P., Creel, J., (2002), *How to reform the European Central Bank*, Centre for European Reform, London.
- Fontana, G., Baddeley, M., (2005), *Monetary Policy in the information Economy: old Problems and New Challenges*, in: Arestis, P., Badeley, M., McCombie L. (eds.), *The New Monetary Policy. Implications and Relevance*, Edward Elgar, Cheltenham-Northampton.
- Foresti, P., Marani, U., (2014), *Expansionary fiscal consolidations: theoretical underpinnings and their implications for the eurozone*, Contributions to Political Economy, Vol. 33, No. 1.
- Frankel, J. A., (1998), *The Implications of Conflicting Models for Coordination between Monetary and Fiscal Policymakers*, in: R. C. Bryant et al (ed.), *Empirical Macroeconomics for Interdependent Economies*, Washington: Brooking Institution.

- Frankel, J. A., Rose, A. K., (1998), *The endogeneity of the optimum currency area criteria*, Economic Journal, Vol. 108, No. 449.
- Gabor, D., (2010), *(De)Financialization and crisis in Eastern Europe*, Competition and Change, Vol. 14, No. 3-4.
- Giannone, D., Lenza, M., Pill, H., Reichlin, L., (2012), *The ECB and the interbank market*, Economic Journal, Vol. 122, No. 564.
- Goodfriend, M., (2000), *Overcoming the zero bound on interest rates policy*, Federal Reserve Bank of Richmond Working Papers, No. 3.
- Goodfriend, M., (2001), *Financial stability, Deflation and Monetary policy*, Federal Reserve Bank of Richmond Working Paper.
- Goodfriend, M., R. King, (1997), *The New Neoclassical Synthesis and the Role of Monetary Policy*, Federal Reserve Bank of Richmond Working Paper, No. 98-5.
- Goyal, R., P. Brooks, M. Pradhan, T. Tressel, G. Dell'Ariccia, R. Leckow, C. Pazarbasioglu and an IMF Staff Team, (2013), *A Banking Union for the Euro Area*, IMF Staff Discussion Note, February.
- Havrilesky, T., (1994), *The political economy of monetary policy*, European Journal of Political Economy, No. 1, pp. 111-134.
- Hein, E., Detzar, D., (2014), *Coping with Imbalances in the Euro area: Policy alternatives addressing divergences and disparities between member countries*, FESSUD Working Paper Series, No. 63.
- Hein, E., Truger, A., (2004), *Macroeconomic co-ordination as an economic policy concept – opportunities and obstacles in the EMU*, WSI Diskussionpapiere, No. 125.
- Henning, C. R., (2007), *Democratic accountability and the exchange-rate policy of the euro area*, Review of International Political Economy, Vol. 14, No. 5.
- http://ec.europa.eu/economy_finance/publications/european_economy/2013/pdf/ee7_en.pdf.
- Issing, O., (2000), *Why Price Stability?*, in: *First ECB Central Banking Conference: Why Price Stability?*, European Central Bank, Frankfurt, November 2000.

- Jaquet, P., Pisani-Ferry, J., (2001), *Economic policy coordination in the eurozone: what has been achieved? What should be done?*, Sussex European institute, Working Paper, No. 40. *Journal of Contemporary European Studies*, No. 19.
- Joyce, M., Miles, D., Scott, A., Vayanos, D., (2012), *Quantitative easing and unconventional monetary policy – an introduction*, *Economic Journal*, Vol. 122, No. 564.
- King, M., (1999), *Challenges for monetary policy: new and old*, [in:] *New challenges for monetary policy. A symposium sponsored by the Federal Reserve Bank of Kansas City*, Jackson Hole, Wyoming.
- King, M., (2006), *Monetary Policy: Practice Ahead of Theory*, in: Matthews, K., Boots, P. (eds.) *Issues in Monetary Policy*, John Wiley&Sons Ltd., Chichester.
- Kluza, S., A. Płociński, A. Stawiński, (2012), *Pozorny paradoks unii bankowej*, *Rzeczpospolita*, No. of 7.10.
- Kuttner, K. N. (2003), *The Monetary – Fiscal Policy Mix: Perspectives from the U.S.*, *Bank i Kredyt*, No. 11-12.
- Laidler, D., (1999), *The exchange rate regime and Canada's monetary order*, Bank of Canada Working Papers, No. 5.
- Lambertini L., R. Rovelli, (2002), *Monetary and fiscal policy coordination and macroeconomic stabilization. A theoretical analysis*, Bologna, mimeo.
- Lane, P. R. (2002), *Monetary-Fiscal Interactions in an Uncertain World: Lessons for European Policymakers*, mimeo.
- Lane, P. R., (2000), *Asymmetric shocks and monetary policy in a currency union*, *Scandinavian Journal of Economics*, Vol. 102, No. 4.
- Lee, J., Crowley, P. M., (2008), *Does all fit one size? An evaluation of the ECB policy response to changing economic conditions in the Euro area member states*, American Consortium on European Union Studies Cases No. 2008.1, http://aei.pitt.edu/59171/1/ACES_Case_Lee_and_Crowley_2008.pdf.
- Lenza, M., Pill, H., Reichlin, L., (2010), *Orthodox and heterodox monetary policies*, *Economic Policy*, Vol. 62.

- Lipinska, A., (2008), *The Maastricht convergence criteria and optimal monetary policy for the EMU accession countries*, ECB Working Paper Series, No. 896.
- Masciandaro, D., Quintyn, M., (2009), *Reforming Financial Supervision and the Role of Central Banks: A Review of Global Trends, Causes and Effects (1998-2008)*, Centre for Economic Policy Research, Policy Insight, No 30.
- Mishkin, F. S., (1997), *Strategies for Controlling Inflation*, NBER Working Paper No. 6122.
- Mongelli, F. P., (2002), *'New' views on the optimal currency area theory: what is EMU telling us?*, ECB Working Paper Series, No. 138.
- Moutot, P., Jung A., Mongelli, F. P., (2008), *The workings of Eurosystem. The Eurosystem monetary policy preparations and decision-making – selected issues*, ECB Occasional Paper Series, No. 79.
- Mundell, R. A., (1997), *Currency areas, common currencies, and EMU*, American Economic Review, Vol. 87, No. 2.
- Mundell, R., (1962), *The Appropriate Use of Monetary and Fiscal Policy for Internal and External Stability*, IMF Staff Papers, No. 1.
- Nordhaus, W. D. (1994), *Policy game: coordination and independence in monetary and fiscal policies*, Brooking Papers on Economic Activity, No. 2.
- Nowotny, E., (2014), *The future of European monetary integration*, Atlantic Economic Journal, Vol. 42, No. 3.
- Parkin, M., (1987), *Domestic monetary institutions and deficits*, in: M. J. Buchanan et al (ed.), *Deficits*, Oxford: Blackwell.
- Petit, M. L., (1989), *Fiscal-Monetary Coordination: A Differential Game Approach*, Journal of Applied Econometrics, vol. 4.
- Petit, M. L., A. Hughes-Hallett, (1990), *Cohabitation or forced marriage? A Study of the Costs of Failing to Coordinate Fiscal and Monetary Policies*, Weltwirtschaftliches Arch.
- Pollard, P. S., (1993), *Central Bank Independence and Economic Performance*, Federal Reserve Bank of St. Louis Review, July-August.
- Rajan, R., (2006), *Has finance made the world riskier?*, European Financial Management, Vol. 12, No. 4.

- Rose A. K., Engel, C., (2003), *Currency unions and international integration*, Journal of Money Credit and Banking, Vol. 34, No. 4.
- Salines, M., Glöckler, G., Truchlewski, Z., del Favero, P., (2011), *Beyond the economics of the euro. Analysing the institutional evolution of EMU 1999-2010*, ECB Occasional Paper Series, No. 111.
- Sargent, T., N. Wallace, (1981), *Some unpleasant monetarist arithmetic*, Federal Reserve Bank of Minneapolis Quarterly Review, Fall.
- Sawyer, M., (2013), *Alternative economic policies for the Economic and Monetary Union*, Contributions to Political Economy, Vol. 32, No. 1.
- Sawyer, M., (2013b) *The problematic nature of the Economic and Monetary Union*, in: Fadda, S., Tridico, P. (eds), *Financial Crisis, Labour Market and Institutions*, London, Routledge.
- Shiller, R.J., (2003), *From Efficient Markets Theory to Behavioral Finance*, Journal of Economic Perspectives, vol. 17.
- Svensson, L.E.O., (1997), *Inflation Forecast Targeting; Implementing and Monitoring Inflation targets*, European Economic Review, vol. 41.
- Szeląg, K., (2008), *A Single Fiscal Policy in the Euro Area: Vision or Utopia?*, National Bank of Poland Working Paper, No. 46.
- Tabellini, G., (1986), *Money, debt and deficits in dynamic game*, Journal of Economic Dynamics and Control, December, vol. 10 (4).
- Tavlas, G. S., (1993). *The 'new' theory of optimum currency areas*, World Economy, Vol. 16, No. 6.
- Tavlas, G. S., (1994), *The theory of monetary integration*, Open Economies Review, Vol. 5, No. 2.
- Taylor, J. B., (2002), *The Monetary Transmission Mechanism and the Evaluation of Monetary Policy Rules*, in: Loayza, N., Schmidt-Hebbel, K. (eds.), *Monetary Policy: Rules and Transmission Mechanism*, Central Bank of Chile, Santiago.
- Taylor, J., (2001), *Low Inflation, Deflation, and Policies for Future Price Stability*, Monetary and Economic Studies (Special Edition).

The Deepening Crisis of the European Union: The Case for the Radical Change, (2014), Dymarski, W., Frangakis, M., Leaman, J., (eds), Poznań University of Economic Press, Poznań. the European Union, Cambridge Journal of Economics, No. 25.

TNS, (2015), Research on euro perception in Poland, Warsaw

Trichet, J.-C., (2014), Central banking in the crisis: conceptual convergence and open questions on unconventional monetary policy, Business Economics, Vol. 49, No. 2.

Vergote, O., Studener, W., Efthymiadis, I., Merriman, N., (2010), Main drivers of the ECB financial accounts and ECB financial strength over the first 11 years, ECB Occasional Paper Series, No. 111.

Walsh, C. E. (2001), Transparency in Monetary Policy, FRBSF Economic Letter, 2001-26, September 7, 2001.

Weber, A., A., (2012), Challenges for monetary policy in the European Monetary Union, Federal Reserve Bank of St. Louis Review, Vol. 93, No. 4.

Woodford, M. (1995), Price Level Determination without Control of Monetary Aggregate, Carnegie-Rochester Conference Series on Public Policy, Vol. 43.

Woodford, M. (2003), Interest and Prices, Princeton University Press, Princeton 2003.

Woodford, M., (2001), Monetary policy in the information economy, in: Economic Policy for the Information Economy, Kansas City, Federal Reserve Bank of Kansas City

Worrell, D. (2000), Monetary and Fiscal Coordination in Small Open Economies, IMF Working Paper, WP/00/56, pp. 1-32.

Yates, T., (2002), Monetary policy and the zero bound to interest rates: a review, ECB Working Papers, No. 190.

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

THE PARTNERS IN THE CONSORTIUM ARE:

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1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
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