The interaction of monetary and financial tasks in different central bank structures

Houben, Aerdt and Kakes, Jan and Petersen, Annelie

De Nederlandsche Bank

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Aerdt Houben, Jan Kakes and Annelie Petersen
De Nederlandsche Bank[1]

1 Introduction

In response to the Great Financial Crisis (GFC), central banks substantially expanded their monetary and financial policy toolkits. Monetary tasks – here defined as monetary policy and the lender of last resort (LOLR) function – have been supplemented by unconventional tools, such as asset purchases and long-term refinancing operations for banks. Moreover, non-monetary policy areas – which may, but do not have to be a central bank responsibility – have been extended. Microprudential banking supervision has been strengthened by a tightening of capital and liquidity requirements. Macroprudential policy and banking resolution have been developed as new areas with specific policy mandates and designated authorities. These extensions have enhanced the financial sector's resilience and increased the scope for stabilization policy and crisis resolution. At the same time, they have made the interaction between policy instruments more challenging.

This article describes how the institutional set-up of these policies differs across Europe and discusses central bank involvement. In some jurisdictions (like Austria) the central bank continues to focus on its core monetary tasks, whereas in other jurisdictions (like the Netherlands) the central bank also plays a prominent role in non-monetary financial policy fields. The purpose of this article is to i) map out how traditional and new policy tools are organized across Europe, ii) discuss how these policy instruments interact, iii) review the pros and cons of central bank involvement, and iv) discuss how the organization of policies – particularly the role of the central bank – may be related to country-specific features (like the importance of large, systemic banks).

[1] The views expressed in this paper are those of the authors and do not necessarily reflect the position of De Nederlandsche Bank.

2 How are non-monetary tasks organized across Europe?

The current institutional set-up of regulatory policies was established in the aftermath of the 2008-2009 GFC. Following a recommendation by the European Systemic Risk Board (ESRB, 2011), European Union jurisdictions established designated authorities that would become responsible for setting macroprudential policy tools. Similarly, the Banking Resolution and Recovery Directive, adopted in 2014, requires European Union member states to establish national resolution authorities. Some countries also changed the set-up of microprudential supervision, for instance by moving to a twin-peaks model in which the central bank is made responsible for banking supervision (Belgium, United Kingdom) or to an integrated supervisor for banks and non-banks outside the central bank (Finland).[2]

The involvement of central banks with non-monetary tasks differs across jurisdictions, but is most prominent for macroprudential policy. In the vast majority of cases, the central bank is directly responsible for macroprudential policy or chairs a committee that sets macroprudential instruments (Table A1 in Annex A). In many cases, central banks are also responsible for microprudential supervision and resolution, but several jurisdictions have designated these tasks to a separate regulator or resolution authority. In the case of resolution, some jurisdictions have given this task to existing bodies that were already responsible for elements of resolution, such as a deposit guarantee fund. There are also jurisdictions with two or more resolution authorities, with specific responsibilities for e.g. the deposit guarantee scheme or resolution planning versus execution.

In practice, these differences are not clear-cut due to cooperation and coordination between central banks and other authorities. In countries with an independent regulator, central banks often provide operational and analytical support through data collection, performing off-site analyses and participating in on-site inspections. In countries where macroprudential instruments are set by the regulator, central banks often have an advisory role and publish financial stability reports. Cooperation and coordination is also promoted by international bodies in which central banks, regulators and other authorities are represented. Examples at the global level are the Financial Stability Board and standard setters such as the Basel Committee for Banking Supervision, and at the regional level the European Systemic Risk Board. Finally, with the launch of the Banking Union in Europe, the ECB has been given responsibilities as a microprudential supervisor as well as a macroprudential authority. The ECB performs these tasks in close cooperation with

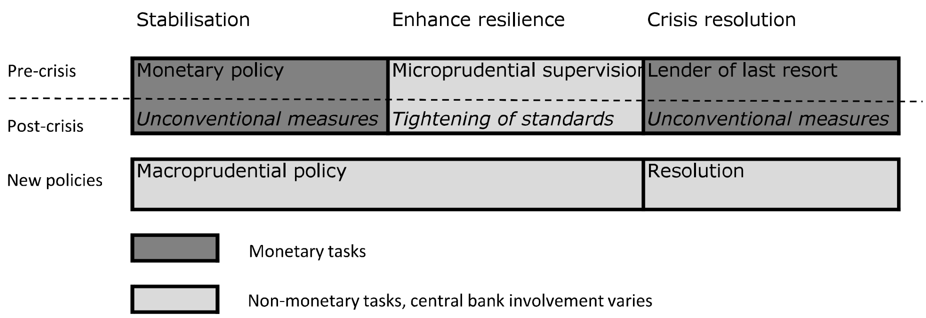
[2] This article focuses on microprudential banking supervision and does not discuss conduct of business supervision. Both are sometimes combined (integrated supervision model) or explicitly separated (twin peaks model).

national authorities, thereby ensuring a significant degree of central bank involvement in these non-monetary areas.

3 How do policies interact?

The different monetary and financial sector policy areas tend to be aligned in normal times, but may work against each other in specific circumstances. Chart 1 illustrates how conventional policies (upper bar) and new policies (lower bar) are related. Monetary policy promotes stable and non-inflationary economic growth; microprudential supervision increases financial institutions' resilience; and the lender of last resort function provides a safety net to contain a financial crisis. When asset prices, economic growth and inflationary pressures move in the same direction, these policy fields tend to be closely aligned. There are circumstances, however, in which policy goals may be inconsistent. For instance, when consumer price inflation is low while financial imbalances are growing, monetary policy aimed at price stability may further exacerbate these imbalances. And when vulnerabilities develop only in a single country – for instance a house price bubble – monetary policy formulated at the euro area level cannot be used to counter such developments. In such circumstances, pursuing different policy goals involves trade-offs and some goals may be compromised.

Chart 1: Financial policy framework



The extension of policy instruments and new policy fields, however, has enhanced the scope to pursue different policy goals simultaneously. According to the Tinbergen rule, policymakers need to control as least as many instruments as they have different policy goals. In this context, macroprudential policies can help to counter imbalances and increase the financial system's resilience, also in situations where monetary and microprudential instruments cannot be fully deployed for that goal. On top of that, resolution can help to deal with a crisis in situations where prudential policies and the LOLR function are insufficient to safeguard financial stability.

Central bank involvement with new policy fields facilitates better oversight and coordination, but may also have disadvantages (Table 1).[3] Combining tasks in a single institution makes it easier to exploit synergies, for instance through more efficient use of resources and more effective coordination. Central banks' relatively independent position and long-term orientation also provide incentives to set instruments without being biased by short-term considerations. Potential disadvantages of combining tasks are conflicts of interest, concentration of power and greater reputation risks. To weigh these trade-offs, the rest of this section discusses how monetary policy and the LOLR function interact with the non-monetary tasks.

Table 1: Pros and cons of central bank involvement with non-monetary tasks

	Advantages	Disadvantages
Microprudential supervision	Better understanding of bank lending channel (monetary policy)	Conflict of interests
	Better understanding of funding needs (LOLR)	Reputation risk
Macroprudential policy	Macro-orientation	Conflict of interests
	Independence & long-term orientation	
	Coordination with monetary stance	
Resolution	More effective crisis management (LOLR)	Conflict of interest (LOLR)
Bundling of all tasks	*Operational synergies, better oversight and scope for policy coordination*	*Conflicts of interests*
		Concentration of power
		Reputation risk

3.1 Interaction between monetary and prudential policies

Monetary policy can be used to pursue financial stability, but that must be weighed against the overriding goal of price stability. More than other policy tools, such as macroprudential instruments, monetary policy "gets into all the cracks" of the financial system (Stein, 2013). Containing financial imbalances would support the microprudential and macroprudential tasks. Several authors have therefore argued that monetary policy should explicitly incorporate financial stability considerations, or – put differently – to "lean against the wind".[4] In this manner, policy rates may be set higher or lower for financial stability purposes than would be justified by inflation targeting alone. The Eurosystem's overriding price stability objective does not preclude other goals as long as these are not inconsistent with price stability. Moreover, price stability is defined as a medium-term objective, which leaves scope to pursue other goals in the short term. And in the long term, financial stability risks may be assumed to create risks to price stability. Leaning against the wind policies are, however, controversial and the literature has not reached a consensus about the balance between costs (reduced scope to pursue price stability and support economic activity) and benefits (reducing the probability of a crisis).[5]

Macroprudential policy instruments may then supplement monetary policy by focusing on financial resilience at the national level. Macroprudential instruments are typically aimed at strengthening the resilience of financial institutions and households. Examples are systemic and countercyclical capital buffers that are imposed as an add-on to microprudential requirements, and loan-to-value and loan-to-income limits for residential mortgages. Even though such macroprudential instruments may not fully counter the build-up of macro-financial imbalances, especially in an environment where monetary policy stimulates such imbalances, the accumulation of additional capital buffers will contribute to greater resilience in the targeted parts of the financial sector.[6] In this respect, macroprudential policy is close to central banking with its traditional systemic orientation and focus on financial cycles.[7] Finally, macroprudential policy tools are set at the national level, which is particularly relevant in a currency union where monetary policy cannot take into account country-specific vulnerabilities. Hence, although the scope to counteract imbalances at the national level may be limited, macroprudential policy can mitigate a country's vulnerability to such imbalances and thereby improve the functioning of the currency union.[8]

Combining monetary policy and microprudential supervision within the central bank may enhance the understanding of monetary transmission but also brings potential conflicts of interests. With more detailed information on the banking sector, the central bank will have a better insight in the way its policies are

[4] See Borio and White (2004), Borio (2013).

[5] See Galati and Moessner (2013), Svensson (2017).

[6] However, the almost exclusive focus of macroprudential instruments on banks implies a potential for risk-shifting beyond the banking sector (Cizel et al., 2019).

[7] See Ingves et al. (2011), De Haan et al. (2012).

[8] Houben and Kakes (2013).

transmitted through the bank lending channel. This is particularly important for European economies, which have predominantly bank-oriented financial structures. At the same time, however, conflicts of interest may arise as supervisory considerations may affect incentives for the monetary policymaker. In particular, the central bank may be inclined to let its decision on monetary stance be influenced by the impact on banks' financial position. Related to this point, bank failures may have adverse consequences for the central bank's reputation, which would also affect the central bank's credibility in conducting effective monetary policy.

3.2 Interaction between LOLR financing and microprudential supervision and resolution

The LOLR function involves a trade-off between providing a safety net and the risk that banks may be prone to moral hazard and rely too much on central bank operations. In periods of systemic liquidity stress, an increasing intermediary role of the central bank as LOLR is generally warranted.[9] At the same time, the availability of this safety net may stimulate moral hazard behavior and undermine market discipline. Traditionally, therefore, LOLR support is provided only temporarily to illiquid but solvent banks against backstop rates and good collateral. As part of the Eurosystem's unconventional measures, however, bank refinancing operations have expanded in terms of volumes and duration with attractive pricing and a loosening of collateral requirements. A relevant question, in this context, is to what extent central bank liquidity provision should be arranged ex ante (which may prevent market stress) or ex post (to contain moral hazard).

Central bank involvement with non-monetary tasks helps to exploit synergies, but may have adverse consequences for market discipline and may create conflicts of interest. Assessments of a bank's soundness and viability are facilitated by close cooperation between the central bank, the supervisor and the resolution authority. This is particularly the case when a bank's financial position significantly deteriorates and regular liquidity provision may have to be suspended or replaced by Emergency Liquidity Assistance (ELA). Indeed, the trade-offs surrounding a central bank's role as LOLR liquidity provider (safety net vs moral hazard) become increasingly complex if these also involve the considerations of the resolution authority (resolving a bank as soon as it is no longer considered viable) and a potential supervisory preference to allow forbearance (to buy time for a bank to recover). In all, the trade-off may be summarized as, on the one hand, improving information flows and allowing inclusive decision-making (by combining tasks) and, on the other hand, avoiding potential conflicts of interests (by separating tasks).

[9] See Bats et al. (2018) for an extensive analysis of the LOLR function in the context of the global financial crisis and its aftermath.

4 Determinants of central bank involvement

Recent decisions on non-monetary tasks exhibit path dependency and a growing role of central banks. Most jurisdictions have avoided an institutional overhaul and build on their existing approach with supervision either inside or outside the central bank (Table A2 in Annex A).[10] However, four jurisdictions (Belgium, Hungary, Ireland and the United Kingdom) moved microprudential banking supervision to the central bank while there was no move in the opposite direction. For the new tasks – macroprudential policy and resolution – most euro area jurisdictions have followed a pragmatic approach by combining them with existing entities. The microprudential supervisor – either the central bank or an independent supervisor – has been made responsible for macroprudential policy in all but four jurisdictions and for resolution in all but seven cases.[11] Outside the euro area, new tasks – particularly resolution – have often been given to other institutions than central banks or regulators, such as independent resolution authorities. The latter also reflects path dependency, as institutions that were already responsible for specific resolution tasks – such as running the deposit guarantee scheme – often had their responsibilities extended to become resolution authorities.

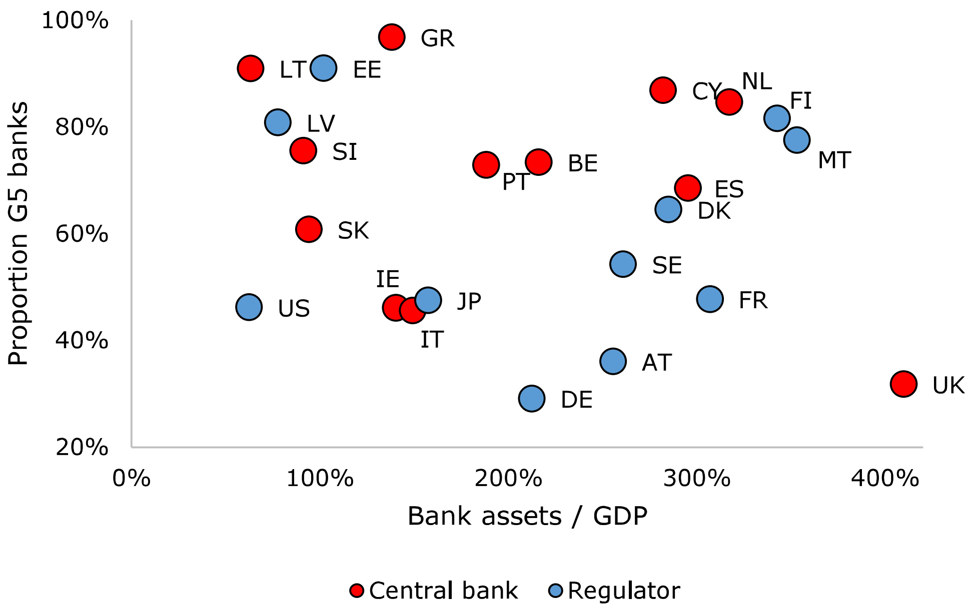
Another determinant of the institutional set-up may be the size and concentration of the financial sector. Systemic risk is particularly relevant in the euro area, as bank-based financial systems are associated with higher systemic risk than market-based systems (Bats and Houben, 2020). Especially in jurisdictions with a large and concentrated banking sector, there is a strong case for a prominent role of central banks in the supervision of banks, to ensure a macro-financial perspective. Indeed, in some of the European jurisdictions with the largest (United Kingdom) and most concentrated (Greece, Netherlands) banking systems, the central bank is also responsible for prudential policies and resolution. The institutional structures in the UK and the Netherlands were explicitly motivated by their concentrated

[10] Calvo et al. (2018) find a similar trend in a survey on institutional changes in 82 jurisdictions.

[11] This follows the ESRB (2011) recommendation that central banks should play a leading role in macroprudential policy, particularly if they are also responsible for microprudential supervision. Moreover, the enhanced microprudential and macroprudential role of the European Central Bank since the start of the Banking Union has further contributed to the role of central banks in non-monetary tasks.

banking systems.[12] But, surprisingly, there seems to be no systemic relationship between financial structure and central bank involvement (Chart 2).

Chart 2: Microprudential authority vs size and concentration banking sector



Source: ECB, World Bank Bank Regulation and Supervision Survey.

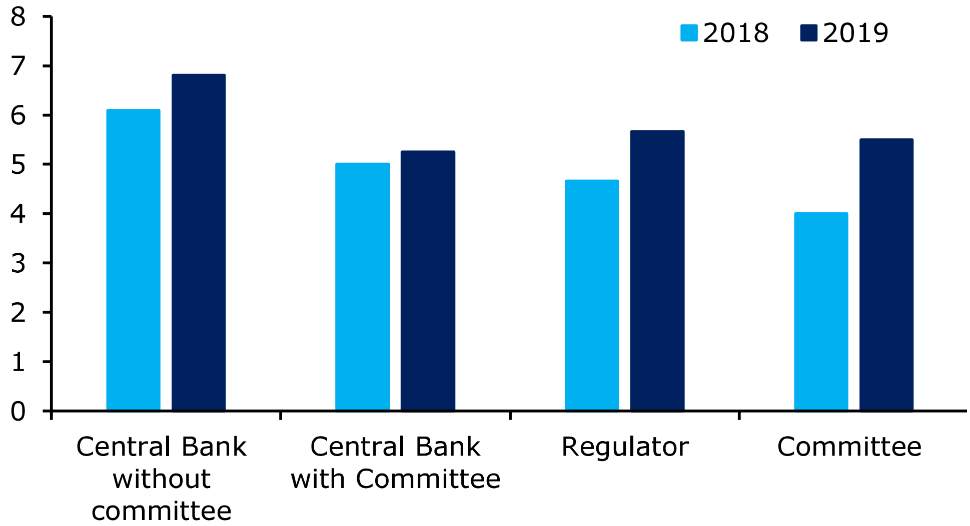
A further consideration is that authorities should be able to effectively respond to structural changes. The financial system continuously evolves, driven by macro trends (internationalization, demographics etc.) and innovation. Authorities need to be aware of such trends and implications for their tasks, which also involves the interaction with other authorities. An example in recent years is the emergence of non-

[12] Chancellor Osborne (2010) motivated the bank of England's new prudential tasks by pointing to the fact that in the concentrated UK banking system the boundaries between micro and macro are hard to define, and to the independence and macroeconomic orientation of central banks and to the synergy with the LOLR function. Similarly, in the Netherlands the move towards a twin peaks model with a supervisory role for the central bank in 2002 was motivated by a conviction that in a concentrated financial system with systemically important financial institutions, financial system stability and microprudential stability are closely linked (Kremers and Schoenmaker, 2010).

banks on credit markets, which has implications for the design of bank and non-bank regulation but also for monetary transmission and the design of monetary operations. Relatively new systemically important players, such as central counterparties (CCPs), may initiate discussions about the desirability of such institutions' access to ELA and, hence, central banks' role in supervision and crisis management. An integrated supervisor is more likely to incorporate cross-sector trends in its supervisory practices, whereas a central bank is more likely to oversee broader systemic aspects.

Finally, a central bank role may contribute to dealing with inaction bias as financial vulnerabilities are building up. Inaction bias is the tendency to postpone desirable policy action when this involves accepting certain, visible, short-term costs on account of uncertain, invisible long-term benefits. While many forces will resist a tightening of prudential measures, few will reward a crisis that never occurred. Inaction bias can be mitigated through an institutional design that stimulates timely action. Given the length of financial cycles and the low frequency of financial crises, inaction bias seems particularly relevant for macroprudential policy. This raises the question whether central banks, who are designated as macroprudential authorities in most jurisdictions, are better able to deal with inaction bias than other institutions. Although it is premature to draw strong conclusions at this stage, Chart 3 presents some very preliminary evidence that, among macroprudential authorities in Europe, central banks have taken on average more macroprudential measures than non-central bank authorities. In the euro area, the ECB's macroprudential mandate has been specifically tailored to counter inaction bias. In particular, the ECB is only allowed to tighten (i.e. not to loosen) national macroprudential policies. This reflects the presumption that national authorities will not delay when loosening their macroprudential policy stance, but may tend to postpone any tightening.

Chart 3: Average number of macroprudential tools activated in EU jurisdictions



Note: This graph should be interpreted cautiously given i) the limited observations (i.e. only two committees are national designated authority) and ii) the relatively short time span considered.

Source: ESRB (2019, 2020)

5 Concluding remarks

Central bank involvement with non-monetary tasks differs across jurisdictions, but has increased since the Global Financial Crisis. Central banks play a prominent role in macroprudential policy, but their involvement with microprudential supervision and crisis resolution has also grown. At the same time, differences across Europe remain substantial as most jurisdictions have chosen to build on their pre-crisis institutional frameworks. Most jurisdictions stuck to their initial choices to have the banking supervisor either inside or outside the central bank, and designated new policies to that supervisor. But the exceptions generally moved more regulatory powers to central banks.

Combining monetary and regulatory tasks improves operational synergies, oversight and policy coordination but may also involve conflicts of interests, concentration of power and reputation risk. The extension of policy instruments has increased the scope to pursue different policy goals simultaneously. Moreover, macroprudential policies in Europe are set at the national level, which increases the scope to address country-specific financial imbalances and improve the functioning of the internal market. The benefits of better policy coordination and oversight can be best exploited by bundling all regulatory policies and monetary instruments into the central bank. In practice, however, this means that the central bank may have to deal with conflicts of interest between different policies and reputation risk. In addition, the combination of many policies in one institution leads to a significant concentration of power.

In the Corona crisis, current institutional arrangements are being tested for the first time since the GFC. This article has been written in May 2020, about two months after the start of the Corona lockdown in most jurisdictions. As a response to the crisis, there have been a myriad of policy adjustments in monetary operations, macroprudential tools, and microprudential and resolution requirements. Some of the policy interactions are already visible – for instance, monetary measures to prevent a tightening of financial conditions and facilitate access to central bank liquidity, together with prudential measures allowing financial firms to draw down capital buffers. Presumably, central banks involved with supervisory tasks are in the best position to oversee how this crisis affects the financial system, as illustrated by the Bank of England's timely stress test published early May 2020. But as the crisis evolves, possible disadvantages of the combined model, such as conflicts of interest between tasks and reputation risk, may also emerge.

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Annex A Monetary and non-monetary authorities by jurisdiction

Table A1: Monetary and non-monetary authorities

	Monetary / LOLR	Microprudential	Macroprudential	Resolution
Euro area				
Austria	Central bank	Regulator	Regulator	Regulator
Belgium	Central bank	Central bank	Central bank	Central bank
Cyprus	Central bank	Central bank	Central bank	Central bank
Estonia	Central bank	Regulator	Central bank	Regulator
Finland	Central bank	Regulator	Regulator	Resolution authority
France	Central bank	Regulator	Committee	Regulator
Germany	Central bank	Regulator	Regulator*	Regulator
Greece	Central bank	Central bank	Central bank	Central bank
Ireland	Central bank	Central bank	Central bank	Central bank
Italy	Central bank	Central bank	Central bank*	Central bank
Latvia	Central bank	Regulator	Regulator**	Regulator
Lithuania	Central bank	Central bank	Central bank	Central bank
Luxemburg	Central bank	Regulator	Regulator*	Regulator
Malta	Central bank	Regulator	Central bank	Regulator
Netherlands	Central bank	Central bank	Central bank*	Central bank
Portugal	Central bank	Central bank	Central bank	Central bank
Slovakia	Central bank	Central bank	Central bank	Resolution authority
Slovenia	Central bank	Central bank	Central bank*	Central bank
Spain	Central bank	Central bank	Central bank	Multiple**
Euro area	Central bank	Central bank	Central bank	Resolution authority
Other EU				
Bulgaria	Central bank	Central bank	Central bank*	Central bank
Croatia	Central bank	Central bank	Central bank*	Multiple**
Czech Republic	Central bank	Central bank	Central bank	Central bank
Denmark	Central bank	Regulator	Ministry of finance*	Multiple**
Hungary	Central bank	Central bank	Central bank	Central bank
Poland	Central bank	Regulator	Ministry of finance*	Resolution authority
Romania	Central bank	Central bank	Committee	Multiple**
Sweden	Central bank	Regulator	Regulator	National debt office
Non-EU				
UK	Central bank	Central bank	Central bank	Central bank
US	Central bank	Other	Central bank	Resolution authority
Japan	Central bank	Regulator	Regulator	Regulator

*Note: * Designated authority as indicated, but committee as macroprudential authority.*
*** Several authorities responsible for resolution. In Spain and Croatia, these are the central bank and a resolution authority; In Romania the central bank and the regulator; in Denmark the regulator and a resolution authority*
Source: EBA, ESRB, World Bank Bank Regulation and Supervision Survey

Table A2: Microprudential supervision: 2020 versus 2007

	2020	2007		2020	2007
Euro area			**Other EU**		
Austria	Regulator	Regulator	Bulgaria	Central bank	Central bank
Belgium	Central bank	Regulator	Croatia	Central bank	Central bank
Cyprus	Central bank	Central bank	Czech Republic	Central bank	Central bank
Estonia	Regulator	Regulator	Denmark	Regulator	Regulator
Finland	Regulator	Regulator	Hungary	Central bank	Regulator
France	Regulator	Regulator	Poland	Regulator	Regulator
Germany	Regulator	Regulator	Romania	Central bank	Central bank
Greece	Central bank	Central bank	Sweden	Regulator	Regulator
Ireland	Central bank	Regulator			
Italy	Central bank	Central bank	**Non-EU**		
Latvia	Regulator	Regulator	UK	Central bank	Regulator
Lithuania	Central bank	Central bank	US	Other	Other
Luxemburg	Regulator	Regulator	Japan	Regulator	Regulator
Malta	Regulator	Regulator			
Netherlands	Central bank	Central bank			
Portugal	Central bank	Central bank			
Slovakia	Central bank	Central bank			
Slovenia	Central bank	Central bank			
Spain	Central bank	Central bank			
Euro area	Central bank	-			

Source: EBA, ESRB, World Bank Bank Regulation and Supervision Survey