

# Monetary policy and banking supervision: still at arm's length?

## A comparative analysis

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### Abstract

By the early 2000s an increasing number of countries had adopted a well-defined central bank framework, characterized by two intertwined features: stronger specialization for the banking authority in achieving monetary policy goals, and a lessening of its traditional responsibilities for the safeguard of financial stability within its institutional perimeter. The fundamental effect was that Central Bank Involvement in Supervision (CBIS) generally decreased.

But then, after the Financial Crisis erupted in 2008, reforms have been undertaken and projects are being discussed to reconsider the role of the central bank in the field of supervisory tasks. The main research question is then: how is CBIS moving?

This article offers two contributions. Firstly, the economics of the relationship between central banking, monetary policy and banking supervision is reviewed. Secondly, the current situation of CBIS in 88 countries around the world is analyzed.

JEL Classification: G18, G28, E50, E52, E58.

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### 1. Introduction

In terms of central banking the most interesting innovation to have taken place in the two decades preceding the 2008 Crisis was the progressive split between responsibility for monetary policy and responsibility for banking supervision<sup>1</sup>. By the early 2000s an increasing number of countries had adopted a well-defined central bank framework, whereby the monetary agency becomes increasingly specialized in achieving monetary policy goals, and consequently its traditional responsibilities in pursuing financial stability seem to be progressively less important. The fundamental effect was that central bank involvement in supervision (hereafter CBIS) generally decreased.

But now a significant number of reforms are currently taking place concerning the central bank's role in the structure of supervision as a consequence of the financial meltdown (hereafter the Crisis).

In 2010, the US legislature passed the Dodd-Frank Act, rethinking of the role of the Fed as part of the general overhaul of financial supervision. Even if during the discussion of the bill US lawmakers debated the possibility of restricting some of the Fed's regulatory powers, as well as increasing political control over the central bank, the Dodd-Frank Act actually ended up increasing

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<sup>1</sup> Eijffinger and Masciandaro 2011.

the responsibilities of the Fed as prudential supervisor<sup>2</sup>. In Malaysia, the 2009 Central Bank Law provided for greater involvement in supervision by the central bank<sup>3</sup>. In the current evolution of the Basel Capital Accord, the activation of countercyclical prudential measures is being put in the hands of central banks<sup>4</sup>.

In Europe, policymakers are moving to finalize reforms concerning the involvement of central banks in supervision both at the regional and national levels. In 2010, the European Systemic Risk Board (ESRB) was established to provide macro-prudential supervision, and the new institution has been dominated by the European Central Bank (ECB)<sup>5</sup>. On June 2012 the heads of state and government of the Eurozone declared that the European Commission would have to present proposals in order to establish an effective single supervisory framework, one which should involve the ECB.

Concerning individual EU members, in 2011, with the new Banking Act, the German government dismantled its unified financial supervisor (BAFIN) in favor of the Bundesbank, which is now the main banking supervisor. In 2010, the UK government put the key prudential functions of the Financial Services Authority (FSA) within the purview of the Bank of England. In 2010, the Irish Financial Services Regulatory Authority was legally merged with the central bank. Further, an analysis of the reforms undertaken in Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Poland and Slovakia reveals that the trend towards supervisory consolidation has definitely not resulted in smaller central bank involvement<sup>6</sup>.

In this respect, it is interesting to note that before the Crisis the central bank was the main prudential supervisor in less than half of EU countries (13 out of 27) (Figure 1). After the Crisis, with the establishment of new supervisory regimes in Belgium, France, Germany and United Kingdom<sup>7</sup>, the central bank has now become the main prudential supervisor in more than half of them (17 out of 27) (Figure 2).

Do these episodes signal a sort of back to the future for central banking regimes, given that before the Crisis the direction of changes in supervisory structures had been characterized by the move of central banking away from supervision<sup>8</sup>? Therefore the main research question is: how is CBIS now moving?

This article offers two contributions, organized as follows. Section Two reviews the economics of the pros and cons of central bank's involvement in supervision, reaching the result that what really matters is the role of the policymaker with his own cost and benefit analysis. The result is used in Section

<sup>2</sup> Komai 2011.

<sup>3</sup> Siregar 2011.

<sup>4</sup> Goodhart 2011.

<sup>5</sup> Salines et al. 2011.

<sup>6</sup> Apinis et al 2011.

<sup>7</sup> Vletter -Van Dort 2011.

<sup>8</sup> Masciandaro and Quintyn, 2009, Orphanides, 2010, Eichengreen and Dincer 2011.

Three to evaluate the evolution of the role of the central banker as supervisor in 88 countries worldwide, before and after the Crisis. Section Four concludes.

## 2. Review of the Literature

In this paragraph, we discuss the economics of the central bank as supervisor, trying to be at the same time systematic in our presentation and parsimonious in our comments. The aim is to show that the most relevant contributions of the huge literature dealing with the issue of CBIS provide contrasting recommendations.

Two main consequences will follow. First of all it will be not surprising to note that from time to time and from country to country the distance between central banking and prudential supervision – CBIS - has varied. Therefore in order to analyze the evolution of the CBIS it will be necessary to complement economic analysis with political economy, zooming on the costs and benefits for the policymaker, who is the ultimate player defining the CBIS.

From a theoretical point of view, the CBIS can be evaluated under two different points of view: macro supervision and micro supervision. Nowadays the central bank is generally considered the monetary authority, i.e. the agent designated by society to manage liquidity in order to pursue monetary policy goals. Being sources of liquidity and acting as lenders of last resort, central banks are naturally involved in preventing and managing systemic banking crises<sup>9</sup> (macro supervision)<sup>10</sup>, in close coordination with government agencies entrusted with responsibility for financial stability<sup>11</sup>.

But should central banks also be in charge of pursuing financial stability through prudential oversight of individual banks (micro supervision)? The question is a long standing one.

On one side, micro supervision is a task that historically has not always been assigned to central bankers<sup>12</sup>. Furthermore the last two decades (the age of Great Moderation<sup>13</sup>) have been characterized by the move towards a decrease in CBIS<sup>14</sup>. On the other side, in the decades before the Great Moderation several central banks were actively and deeply involved in pursuing tight structural

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<sup>9</sup> Goodhart and Shoenmaker 1995, Masciandaro 1995 and 2007, Nier 2009, Blinder 2010, Goodhart 2010, Brunnermeier et al. 2010, Borio 2007 and 2011, Nier et al. 2011, Bernanke 2011, Lamfalussy 2010, Bean 2011, CIEPR 2011. On the role of the European Central Bank in the liquidity management, with particularly attention to the sovereign debt issue see Shaefer 2011.

<sup>10</sup> Gersbach 2011 claims that macro prudential supervision should be outside the central bank responsibilities, in order to avoid time inconsistency in pursuing the monetary policy goals.

<sup>11</sup> Gerlach 2010, Angelini et al. 2012.

<sup>12</sup> Ugolini 2011.

<sup>13</sup> See among others Bean 2011.

<sup>14</sup> Masciandaro and Quintyn 2009, Eichengreen and Dincer 2011.

controlling activities<sup>15</sup>, which were considered thoroughly integrated in the overall responsibility of the central bank for managing liquidity.

But going beyond historical cyclical patterns and focusing on the economics of the relationship between monetary and supervision policies, is it possible to disentangle the pros (*integration view*) and cons (*separation view*) of merging monetary and supervisory functions<sup>16</sup> (Table 1)?

The central bank's high involvement in supervision (*integration view*) is usually supported by arguments related to the informational advantages and economies of scale that derive from bringing all functions under the umbrella of the authority in charge of managing liquidity<sup>17</sup>. One additional argument is that human capital employed by the central banks is presumably better equipped also to deal with supervisory issues<sup>18</sup>. Having access to all information would help the more highly skilled central bankers to act as more effective supervisors. In other words, setting up a supervisory authority different from the central bank is not efficient, i.e. greater CBIS brings potential gains.

At the same time the economic literature acknowledges that central bankers involved in supervision can produce greater costs in terms of policy failure (*separation view*), i.e. a smaller CBIS is better. The crucial argument supporting this point of view is that when the central banker – i.e. the liquidity manager - also acts as the supervisor the risk of policy failure is greater. It is important to highlight that the risk of policy failure is endogenous with respect to the distribution of power: it exists only if the supervisor is the central bank, acting as liquidity manager. The risk of policy failure can be differently motivated, shedding light on the various sources of the policy failure risk.

First of all, if the supervisor can discretionally manage liquidity, the risk of moral hazard in supervised banks can increase<sup>19</sup> (*moral hazard risk*). If the supervisor is not the liquidity manager this source of moral hazard doesn't exist.

Secondly, the discretionary action of the central bank can increase uncertainty in supervised markets, as the recent on-again/off again rescues of financial firms in the US have demonstrated<sup>20</sup> (*uncertainty risk*). If the supervisor is the liquidity manager greater moral hazard and greater uncertainty are likely to be produced.

Thirdly, it has been highlighted that monetary policy responsibilities can negatively affect the central bank's behavior as supervisor<sup>21</sup>, given the existence

<sup>15</sup> Cagliarini et al. 2010, Goodhart 2010, Bordo 2011, Toniolo 2011.

<sup>16</sup> The integration versus separation approach was introduced in Masciandaro 2012.

<sup>17</sup> See, among others, Bernanke 2011, Herrings and Carmassi, 2008, Klomp and de Haan 2009, Blanchard et al., 2010, Blinder 2010, Lamfalussy 2010, Papademos 2010.

<sup>18</sup> Apinis et al. 2010, Ito 2010, Lamfalussy 2010.

<sup>19</sup> Masciandaro 2007, Lamfalussy 2010.

<sup>20</sup> Taylor 2010.

<sup>21</sup> Ioannidou 2005.

of reputational risks<sup>22</sup>, as well as conflicts of interest between monetary policy and supervision management<sup>23</sup> (*distorted incentives risk*).

Fourthly, the central banker can use his/her powers in liquidity management to please the banking constituents, instead of pursuing social welfare. In this respect, the central bank can be the most dangerous case of a supervisor being captured by bankers<sup>24</sup>, given that the banking industry may be more willing to capture supervisors which are powerful<sup>25</sup> (*capture risk*).

Finally, the unification of banking supervision and monetary policy in the hands of the central bank can create an overly powerful bureaucracy with related risks of misconduct<sup>26</sup> (*bureaucratic overpower risk*).

Therefore the comparison between the integration and separation views is inconclusive: the optimal CBIS cannot be defined.

The same conclusion is confirmed on empirical grounds, acknowledging that available analyses are rare and very recent. The integration view finds empirical support in a study<sup>27</sup> where the degree of compliance with Basel standards is used to investigate the possible relationship between the compliance capacity of each country and the way these countries have organized the role of the central bank as main banking supervisor. The separation view seems to be confirmed by the results, which indicate that the performance of financial markets is better when supervision is delegated to an independent agency different from the central bank<sup>28</sup>. But results also show some evidence in favor of supervisory consolidation being established within the central bank. Finally it has been claimed<sup>29</sup> that the fact the (unified) supervisor lies within or without the central bank does not have a significant impact on the quality of supervision.

At the end of the day, the review of the economic literature shows that the various arguments lead to conflicting predictions in terms of what the optimal involvement of the central bank should be in terms of supervisory powers. So far consensus has not been reached on what should be in principle the best degree of CBIS, since it is impossible to evaluate in general, objective and invariable terms the pros and cons of each specific aspect of supervision being delegated to the central bank. In other words, it is not possible to conclude that the integration view is superior to the separation view, and vice versa. The same conclusion can

<sup>22</sup> Papademos 2010.

<sup>23</sup> Goodhart and Shoenmaker 1995, Blinder 2010, Gerlach et al. 2009, Masciandaro et al. 2011.

<sup>24</sup> Barth et al. 2004, Djankov et al. 2002, Quintyn and Taylor 2002, Boyer and Ponce 2011a and 2011b.

<sup>25</sup> Boyer and Ponce 2011a and 2011b.

<sup>26</sup> Padoa Schioppa, 2003, Masciandaro, 2007, Blinder 2010, Oritani 2010, Goodhart 2010, Eichengreen and Dincer 2011.

<sup>27</sup> Arnone and Gambini 2007.

<sup>28</sup> Eichengreen and Dincer 2011.

<sup>29</sup> Čihák and Podpiera 2007.

be reached by considering the integration vs. separation dilemma from the monetary policy angle <sup>30</sup>.

If this line of thinking is correct, one additional conclusion can be reached: the cyclical patterns of CBIS cannot be explained by the existence of a superior setting for delegating powers to central banks. Rather, the different arguments supporting either the integration view or the separation view can be more or less important in the minds of those who design and implement supervisory regimes. What I'm saying is that we have to focus our attention and research on the agent responsible for monetary and financial settings, i.e. the policymaker.

Here I share the political economy approach<sup>31</sup> that argues that the policymaker's actual choices related to the assignment of supervisory tasks are conditional on the economic and institutional environment existing at a given time, which in turn determines the political weights assigned to the pros cons of CBIS.

This theoretical framework is based on two hypotheses. First of all, gains and losses of a given central bank setting are variables computed by the incumbent policymaker, who maintains or reforms the supervisory regime following his/her own preferences. Secondly, policymakers are politicians, and as such they are held accountable at elections for how they have managed to please voters. All politicians are career-oriented agents, motivated by the goal of pleasing voters in order to win elections. The main difference among various types of politicians concerns which kinds of voters they wish to please in the first place.

Therefore CBIS is likely to change over time following the political preferences favoring a stronger (or weaker) supervisory power delegation to the monetary authority.

### 3. Comparative Analysis: before and after the Crisis

In the previous paragraphs two conclusions have been reached: the optimal level of CBIS cannot be defined; the driver of CBIS patterns is likely to be a political cost and benefit analysis. Moving from the theoretical to the institutional analysis and wondering if the role of central bank as supervisor has changed in the last two decades, toward integration rather than separation, a question naturally arises: How can the CBIS be evaluated? Or more challengingly: is it possible to detect the evolution of CBIS in a measurable way, using the

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<sup>30</sup> See Goodhart and Schoenmaker 1995, Arnone et al., 2007, Masciandaro 2007 and Hussain 2009 for comprehensive reviews of the literature, that consider the question also from the monetary policy effectiveness point of view.. On this issue - as well as on the related consequences on central bank governance - see also: Goodhart et al. 2009, Crockett 2010, Papademos 2010, Svensson 2010, Aydin and Volkan 2011, Cukierman 2012 Woodford 2012. For the specific relationship between central bank involvement in supervision and the (internal and external) monetary regimes see Dalla Pellegrina, Masciandaro and Pansini 2011 and 2012.

<sup>31</sup> Masciandaro 2006, 2007 and 2009, Masciandaro and Quintyn, 2008.

qualitative narrative of actual central bank regimes to build up quantitative analyses?

This was also the motivation to construct the first index for a central bank's involvement in supervision<sup>32</sup>, labelled as the Central Bank as Financial Authority (CBFA) Index. The index was created by means of an analysis in each of the sampled countries of which, and how many, authorities are empowered to oversee the three traditional sectors of financial activity: banking, securities, insurance.

In order to transform qualitative information into quantitative indicators, for each country and for each of the three traditional financial sectors, the basic metrics of the CBFA index was set equal to: 1 if the central bank is not given the main responsibility for banking supervision; 2 if the central bank has the main (or sole) responsibility for banking supervision; 3 if the central bank has responsibility over any two sectors; 4 if the central bank has responsibility for all three sectors.

In evaluating the role of the central bank in supervision, it was considered the fact that, whatever the supervisory regime, the monetary authority has *de facto* responsibility to pursue macro-financial stability, as it has been noted in the review of the literature. Consequently, it has been used the following rule of thumb to evaluate the relative role of the central bank in supervision: it has been assigned a greater value (2 instead of 1) when the central bank is the sole or the main authority responsible for banking supervision.

The evolution of the CBFA index was traced by drawing upon an 88-country database for the 1998-2008 period<sup>33</sup>. Inspection of this database highlights a trend toward supervision consolidation outside central banks, where outliers are those central banks having no monopoly over monetary policy responsibilities.

In other words, before the Crisis the trend of change in supervision structures seemed to be leading to two distinctive features: consolidation and specialization. Reforms were driven by a general tendency to reduce the number of agencies, in order to either reach a unified model of supervision – unknown before 1986 – or the so-called twin peaks model<sup>34</sup>. In both models, supervisors are specialized, and have a well-defined mission. The trend towards specialization becomes particularly evident noting the route that national central banks followed. Those banks entrusted with full responsibility for monetary policy – the Fed, the ECB, the Bank of England, the Bank of Japan – were not given full responsibility for supervisory policy. The worldwide rise of specialization in monetary policy led to reforms that gave central banks a clear mandate, focused on price stability, and granted political and economic independence; the best

<sup>32</sup> Masciandaro 2006, 2007 and 2008, Masciandaro and Quintyn 2009.

<sup>33</sup> Masciandaro 2009, Masciandaro and Quintyn 2009.

<sup>34</sup> Masciandaro and Quintyn 2009 and 2011.

practice in monetary regime design can be summarized as: flexible policy rules, conducted by and independent and accountable central bank acting in a flexible exchange rate environment<sup>35</sup>.

This does not mean that these banks were unconcerned by financial stability – actually the opposite was true, as we would later observe during the Crisis – but they usually tended to address it from a macroeconomic perspective, as a function of their primary mission, i.e. monetary policy. Among the central banks that did not have full responsibility for monetary policy, such as those belonging to the European Monetary Union, the most prudent banks chose to specialize in supervision. In general, it was noted<sup>36</sup> that the central banks of EMU members were becoming financial stability agencies. The explanation is simple: when a central banker is no longer the sole manager of liquidity – as is the case with the central banks who joined the European Monetary System – the expected downside of involving him/her in supervision becomes weaker, and the integration view gains momentum.

In general, analyses based on the CBFA Index concluded that before the Crisis the distance between central banks and supervisory responsibilities was substantially increased. The separation view dominated. Using our political economy model we could say that on average policymakers gave more weight to the expected gains coming from specializing the central bank as monetary agent, while entrusting another authority with the powers arising from supervisory agency, and less weight to the benefits of delegating both functions to the central bank, because they didn't want to face the potential costs connected with the risk of policy failure. The optimal level of CBIS was then likely to decrease.

But to what extent are these facts dependent on the specific features of the index? The CBFA index was designed to be consistent with the aim of measuring the degree of central bank involvement, and this requires a degree of subjectivity in placing weights, for example, by giving more relevance to supervision of both banking and securities industries, or by evaluating the degree of consolidation when there are at least two supervisors in one sector, or when a supervisor is in charge of more than one sector. Consequently, one type of improvement was to reduce the role of subjective weights.

The improvement was made by constructing the Central Bank as Financial Supervisor (CBFS) Index<sup>37</sup>. CBFS is a more objective measure of the level of central bank involvement in supervision; it is derived by applying the classical numerical index proposed by Herfindahl and Hirschman to this novel field<sup>38</sup>. The

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<sup>35</sup> Cukierman 2008.

<sup>36</sup> Herrings and Carmassi 2008.

<sup>37</sup> Masciandaro and Quintyn 2011 Masciandaro, Pansini and Quintyn 2011.

<sup>38</sup> Hirshman 1964.



CBFS index is used to calculate the degree of CBIS. The robustness of the application of the CBFS index depends on the following two key hypotheses<sup>39</sup>.

First of all, it must be possible to define the different sectors to be supervised (institutional dimension) for every given country (geographical dimension). In other words, in every country, each single financial market constitutes a distinct market for supervision. In fact, it is still possible to identify both the geographical dimension – the existence of separate nations – and the institutional dimension – the existence of separate markets – notwithstanding the fact that the blurring of the traditional boundaries between banking, securities, and insurance activities and the formation of large financial conglomerates have diluted the definition of intermediaries. Then, for each sector, in case of the presence of more than one agency, the distribution of the supervisory powers among different authorities, and consequently their share of involvement in supervision, was defined without ambiguity. In each sector, as the degree of supervision consolidation falls, a greater number of authorities are involved in monitoring activities.

Secondly, the power of supervision was considered as a whole. Given different kinds of supervisory activity (banking supervision, securities markets supervision, insurance supervision) there is perfect substitutability in terms of supervisory power and/or supervisory skills. Supervisory power is a feature of each authority as agency, irrespective of where this power is exercised (agency dimension). Consequently, for each country and for each authority, the share of the supervisory power it enjoys in one sector has been added to the share it owns in another one (if any). For each authority, as the degree of supervisory power increases, the greater is the number of sectors over which that agency exercises monitoring responsibility. All three dimensions – geographical, institutional and agency – have legal foundations and economic meaning.

This methodology was used to construct the CBFS Index. The intuition was quite simple: the greater the share of the central bank's supervisory powers, the greater the odds that the central bank will be involved in the overall organization of supervision. In other words, CBIS is likely to be at a maximum where the central banker is the unified supervisor in charge, while involvement is likely to be low, the smaller the number of sectors over which the central bank has supervisory responsibilities. In order to construct the CBFS index, it is just sufficient to measure the share of supervision assigned to the central bank in each country, which can go from 0 to 1.

By using this index, it has been previously shown<sup>40</sup> how the CBIS has changed from before and after the Crisis. Two facts emerge (Figure 3). Before the Crisis – yellow bars – advanced countries display on average a lower level of CBIS than the overall sample. Conversely, within advanced countries, European

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<sup>39</sup> Masciandaro and Quintyn 2011.

<sup>40</sup> Masciandaro, Pansini and Quintyn 2011.

countries and EU members exhibit a higher degree of CBIS. However, since the Crisis started a sort of back to the future phenomenon has been witnessed: 2009 data – green bars – show that in either advanced or European/EU countries CBIS has increased, while it has slightly decreased across the whole sample. The integration view seems to have gained new consensus.

The explanation than can be given for this new trend is the growing attention given to macro-prudential supervision in the wake of the crisis<sup>41</sup>. The neglect of systemic risk in the financial system in the run-up to the crisis has made it clear that it is crucial to timely monitor and assess threats to financial stability arising from macroeconomic and macro-financial developments. This renewed emphasis on financial supervision has forced policymakers to identify specific agencies responsible for macro supervision.

In order to carry out macro prudential tasks, information on the economic and financial system as a whole is required. The current turmoil has strengthened the role of central banks in the prevention, management, and resolution of financial crises. Therefore the view that central banks are best placed to collect and analyze this kind of information in gaining momentum, given their role in managing monetary policy in normal times, and acting as lender of last resort in exceptional times.

From a policymaker's point of view, the central bank involvement in macro supervision brings potential benefits in terms of information gathering. Policymakers can also postulate that the potential costs of involvement in macro-prudential supervision are smaller with respect to micro supervision. Into the framework of our political economy model this means that the integration view becomes more attractive and thus the optimal level of CBIS increases.

In fact – as pointed out in the previous sections – central bank involvement in micro-prudential supervision has traditionally been considered costlier for at least two different reasons. First, there is the classic risk of moral hazard: banks become less risk averse if the lender of last resort also acts as banking supervisor (*moral hazard risk*). The moral hazard argument is weakened if the central bank is not the micro-prudential supervisor. Secondly, if the central bank is both the macro- and micro- prudential supervisor, the government might fear that the bureaucratic powers of the central bank have become too vast (*bureaucratic overpower risk*). Thus, if overall supervisory powers are split between micro and macro agencies, the risk of having to face an all too powerful bureaucracy becomes smaller. In other words, the separation between micro- and macro-prudential supervision can be used to reduce the fears raised by the prospect of too much central bank involvement.

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<sup>41</sup> Masciandaro and Quintyn 2011, Masciandaro, Pansini and Quintyn 2011.

#### 4. Conclusions

The design of central banking has to take into account the lessons of the Crisis, with particular attention to the relationship between monetary authority and banking supervision. Everybody agrees about that. But what is the state of art?

Before the Crisis, central bank arrangements were generally characterized by a split between responsibility for monetary policy and responsibility for financial supervision, assigning each function to a different regulator.

Looking at EU countries it is easy to note that more than half of them – 15 out of 27 – had unified financial and banking oversight in the hands of a single authority, generally not the central bank. Also, the diffusion of the new model of supervision was rapid, if one considers that the first EU country adopting it was the UK in 1998.

Monopoly over supervision went hand in hand with specialization of the authorities: only in three cases – Ireland, Czech Republic and Slovakia – the single supervisor was the central bank. One should also note that these three countries were and are members of the Economic and Monetary Union (EMU), so that control over monetary policy is delegated to the European Central Bank (ECB) in Frankfurt. The central bank was the main banking supervisor in other 10 countries, while in the remaining two cases the main banking supervisor was neither a unified financial authority nor the central bank.

But why was the trend not in favor of handing monopoly over regulatory policy to the actor already having monopoly over monetary policy? The explanation is clear: on average, policymakers evaluated that the disadvantages outweighed the advantages of integration. Those who favor the coupling of the two policy prerogatives within the central bank object that there are significant benefits in terms of information. But there are other ways to improve informational advantages beyond such coupling.

On the other hand, the coupling of supervisory functions and monetary functions poses certain dangers, which were likely to influence policymakers' decisions on central bank arrangements. There is the risk of distorting the behavior of financial intermediaries, by augmenting their propensity for risk-taking. When your controller is the same actor that can save you by printing more money, the controlled firm is amenable to think that bailouts are likely to be forthcoming. The reason is simple: the controller does not want to lose reputation.

There is a further risk attached to central bank behavior, which can turn it into an all-powerful bureaucracy, with related consequences. The fact that some central bankers like the integration solution does not decrease such risk, quite the opposite. Thus, the coupling of financial supervision and monetary policy does not keep banks, the central bank and the political system at arm's length from each other, with all the attendant risks.

Before the Crisis the separation view tended to prevail, at least in advanced countries and particularly in the European arena. Then the Crisis came.

In response to the financial turmoil, different countries and regions have implemented or are evaluating the possibility of introducing reforms aimed at reshaping CBIS. The experience of the last months has seen the increasing involvement of central banks in supervision, usually by using the “new” formula of macro-supervision.

The explanation can be found in the effects the financial crisis has had on policymakers’ perception of the pros and cons of CBIS. The crisis has stressed the importance of overseeing systemic risk. It has now become crucial to monitor and assess the threats to financial stability that can arise from macro developments taking place in the financial system as a whole.

The view that central banks are in the best position to collect and analyze this kind of information is gaining momentum, given their role in managing monetary policy both in normal and exceptional times as lenders of last resort. From a policymaker’s point of view, larger central bank involvement in macro supervision brings greater potential benefits in terms of information. A policymaker can also presume that the potential costs of central bank involvement are smaller compared to those related to micro supervision.

In other words, the separation between micro and macro supervision and the lessons of the Crisis have reduced the strength of the arguments brought against central bank involvement in macro supervision, and at the same time have reinforced the case for avoiding any delegation of micro supervision to the central bank.

Thus two conclusions emerge. On one side, the distance between central bank and prudential supervision is now shrinking back again, while maintaining the new distinction between macro and micro supervision. But we cannot yet say that we are witnessing the definitive crisis of the separation view, given that involvement of central banks in macro-prudential supervision can be still consistent with specialization of the central bank as monetary authority, which means micro supervision not being done inside the central bank. At the same time, we cannot exclude the possibility that macro involvement is just a first step towards greater power assigned to central banks in overall prudential management, including micro responsibility.

The subject is in an intriguing state of flux. The future path will crucially depend on how the new responsibilities will affect the overall design of central banking, country by country. Other things being equal, the distinction between micro and macro supervision is still weak at the theoretical level, and its actual institutional functioning remains to be defined in a complete and consistent way.

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## Appendix: Tables and Figures

Table 1: integration and separation views on central bank involvement in supervision (CBIS)

<b>INTEGRATION VIEW (PROS): MOTIVATIONS</b>	<b>SEPARATION VIEW (CONS: POLICY FAILURE RISK): MOTIVATIONS</b>
CBIS can produce informational advantages and economies of scale (INFORMATION GAINS)	CBIS can increase moral hazard and uncertainty in supervised banks (MORAL HAZARD)
CBIS can be more efficient, given that the human capital employed by central banks is better equipped to manage and oversee supervisory issues (HUMAN CAPITAL GAINS)	CBIS can be less effective, given that monetary policy responsibilities can affect the behavior of central bank as supervisor, due to reputational and conflict-of-interest risks (DISTORTED INCENTIVES)
	CBIS can be less effective, given that a central banker can use his/her powers to favor banking constituents, with related risk of capture (CAPTURE)
	CBIS can be less effective: the more the supervisor is powerful (as the central bank is), the greater the risk of bureaucratic misconduct (BUREAUCRATIC OVERPOWER)



Figure 1

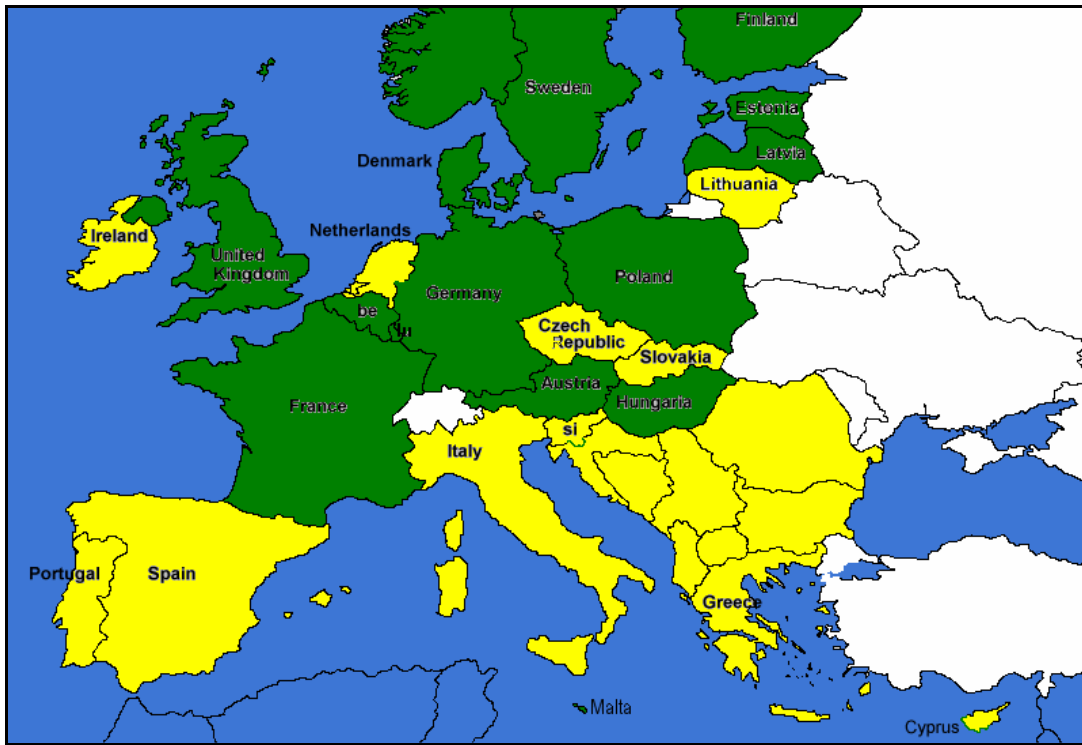


Figure 2

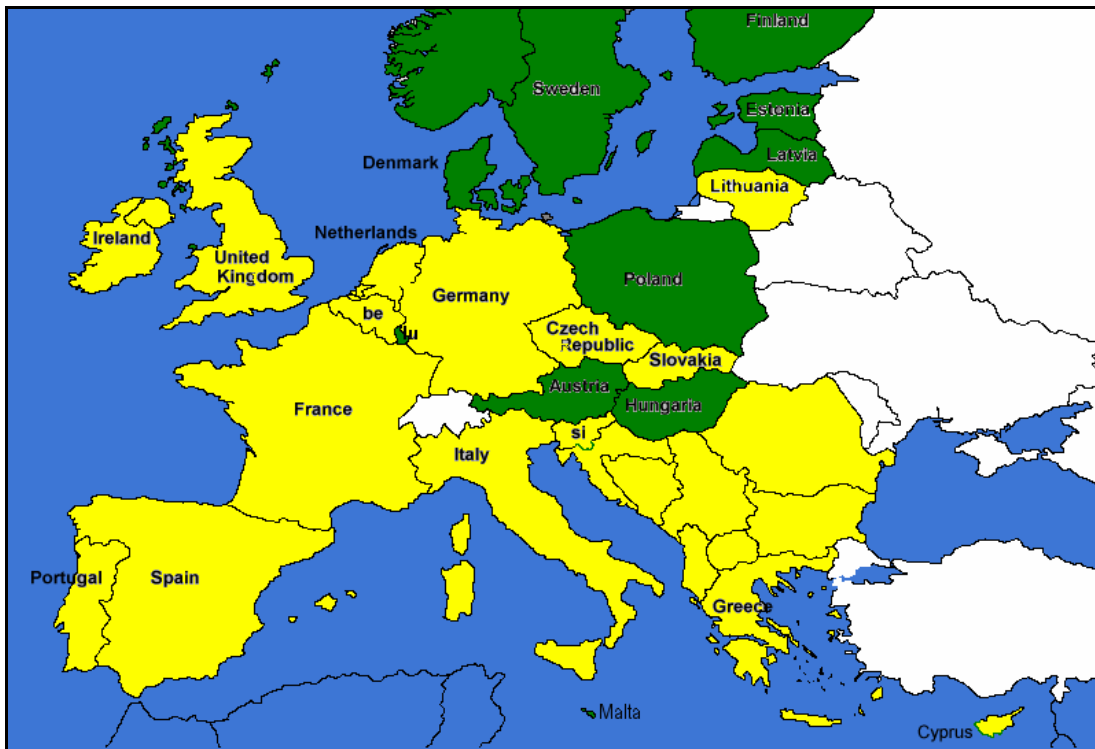
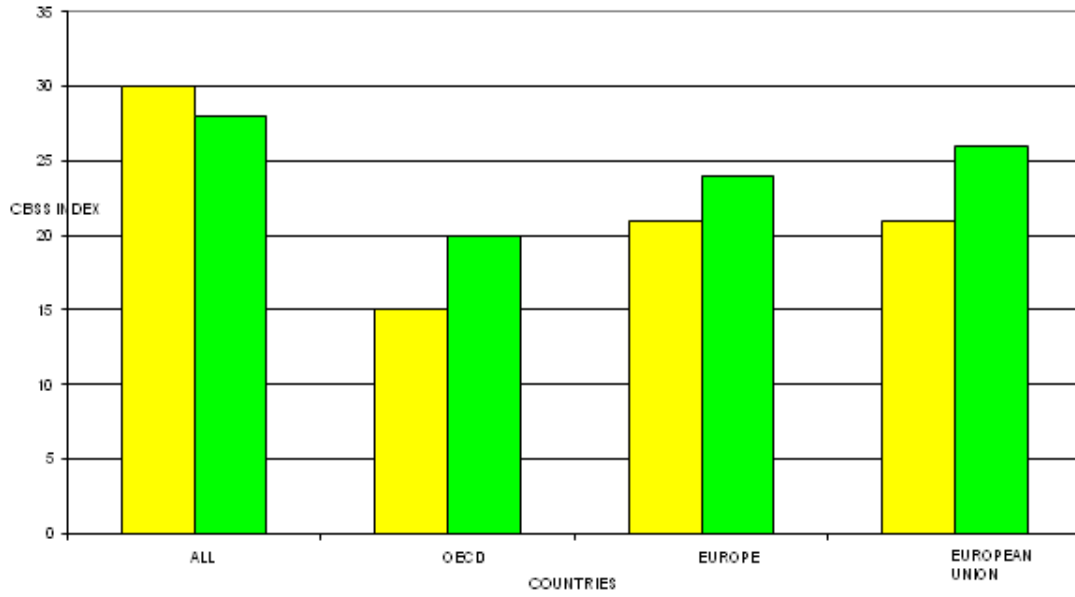


Figure 3

CENTRAL BANK INVOLVEMENT IN SUPERVISION  
(source: Masciandaro, Pansiri and Quintyn 2011)



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