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FINANCIAL REGULATION AND SUPERVISION IN EUROPE: EMERGING TRENDS, COSTS AND EFFECTIVENESS

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FINANCIAL REGULATION AND SUPERVISION IN EUROPE: EMERGING TRENDS, COSTS AND EFFECTIVENESS*

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ABSTRACT

European financial regulation and supervision have undergone tremendous changes over the last years. The current institutional arrangements adopted in Europe, at both EU/eurozone and national level, are the results of an evolutionary process that was mainly driven in its recent phases by the impact of the crisis broken out in 2008 and the 2010-2011 sovereign debt crisis. On the one hand, the financial crisis has triggered developments in financial regulation and supervision that have reshaped previous institutional architectures; on the other hand, it has also brought into question supervisors' performance. From this twofold perspective, our study first offers an updated overview of the emerging trends in financial regulation and supervision in the European Union, with a particular focus on the various institutional architectures, the role of central banks and the post-crisis reforms in individual countries and at the European level. Second, this research aims to shedding more light on the direct costs of supervision and its effectiveness.

Overall, our empirical analysis shows that supervisors tend to become larger over time, in terms of both budget and staff, also in response to previous regulatory and supervisory failures. Political interference is avoided by the dominance of a market-based funding system. We observe a wide heterogeneity across different national systems and different supervisors in terms of direct costs data availability and reporting practices. We do believe that a comprehensive analysis of supervisors' performance cannot be based only on a cost-side evaluation, even if it is adjusted to account for the size of supervised industries and markets. Based on both quantitative and qualitative indicators, supervision effectiveness has necessarily to be taken into account, and in this regard there is ample room for further research.

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Introduction

Banking and financial markets tend to be inherently unstable if they are left free to function without any form of regulatory constraint and supervisory action. The rationales and objectives of financial regulation and supervision are the preservation of the stability of individual firms – micro-financial stability – and the financial system as a whole – macro-financial stability; the protection of savers and investors, which is crucial in order to facilitate the channeling of resources from surplus entities to deficit entities, also through the mitigation of asymmetric information problems, with transparency and disclosure requirements; the efficient and competitive functioning of banking and financial markets.

In order to achieve these objectives, countries have adopted specific institutional arrangements, entrusting regulatory and supervisory authorities with the necessary powers and tools. The choice on the institutional structure of regulation and supervision changes across countries and over time: different architectures mirror different visions on the best approaches and strategies to achieve the desired goals. Over the last three decades, these structures have undergone a process of transformation in a large number of countries, driven by dramatic changes in the structure and functioning of financial markets, triggered or at a minimum facilitated by deregulation and cross-sector integration in the financial industry.

Chapter 1 provides an overview of the main approaches to banking and financial regulation and supervision, with a focus on the institutional architectures and on their evolution over time in advanced countries, with a particular attention for Europe and the euro area. The creation of the Single Supervisory Mechanism (SSM), which became operational on November 4, 2014, is only the latest step of a 20-year long series of profound transformations of regulatory and supervisory institutional arrangements in European countries. Understanding the differences in the institutional structures is of paramount importance in order to get a comprehensive picture of financial regulation and supervision; and, it is a necessary condition to carry out meaningful comparisons between authorities and across countries, including those on the costs and effectiveness of regulation and supervision that are the objects of Chapter 2 and Chapter 3, respectively.

Overall, the quality of financial regulation and supervision across main European countries has proven to be a key issue during the financial crisis. In order to provide a comprehensive assessment of the institutional arrangements adopted in the countries examined here, we first run a cost-side analysis in Chapter 2 and we then study the effectiveness of supervisory agencies' action in Chapter 3. Costs of financial regulation and supervision are as difficult to measure as important,

especially due to the peculiar nature of some of these costs: beyond the direct costs, which are relatively easy to measure and usually borne by supervised entities through fees, there are internal costs borne to comply with the regulations, that are extremely difficult to identify and quantify. The empirical evidence reported in Chapter 2 refers to the former. To our knowledge none of the prior studies has the scope of this research in terms of both the number of authorities and the length of the time horizon taken into account.

Studying the effectiveness of financial supervision is crucial to fully evaluate the overall adequacy and sustainability of a financial supervision system. Differences in the effectiveness of supervisors' activity can help to explain the differences in the impact of the crisis on countries with financial systems operating under the same set of global standards. There are many ways to measure the performance and effectiveness of financial supervisors' action. Effectiveness indicators are generally classified as follows: effort and effect indicators, output and outcome indicators, hard and soft indicators. Chapter 3 examines some output indicators, such as the number of inspections and investigations, referred to the securities markets agencies of Italy, France, Spain and UK. Though there is significant room for getting a more refined and comprehensive picture, our preliminary analysis casts some doubts about the presumed direct correlations between costs and benefits of supervision.

Chapter 1

The new organizational structure of financial regulation and supervision in Europe

1.1 Institutional arrangements for banking and financial regulation and supervision

Academic and policy oriented debates have identified a number of possible institutional arrangements for banking and financial regulation and supervision. Before going into depth into these different approaches, it must be noted that, for simplicity's sake, hereinafter we will use the term regulation and supervision interchangeably and, unless otherwise specified, to indicate both concepts: but it is crucial to remember that the two functions are different, even though typically regulators are also entrusted with supervisory powers.¹

The issue of the institutional arrangements for banking and financial supervision concerns the choice about what and how many authorities to involve in supervision, and how to allocate supervisory responsibilities, should different bodies be involved. These choices, in turn, are likely to depend on a variety of factors including the structure and functioning of the financial system, the desire to avoid excessive concentration of power or to reap costs saving for example through economies of scale and scope.

A first possible structure for financial supervision is based on a sectoral approach, entailing one supervisor for each of the three main segments of the financial markets, banking, securities and insurance: one supervisor is responsible for banking oversight, a different authority oversees the securities markets and a third body is entrusted with the supervision of the insurance sector (and pension funds – which however may also be overseen by another, different authority). The key benefit of this type of supervisory architecture is that each supervisor is specialized in the regulation and control of one specific sector: higher specialization might entail more efficiency and effectiveness and could eliminate room for overlap between the measures and actions of different authorities.

The sectoral approach is likely to be particularly suitable where financial markets are segmented and there is no or low degree of integration across the different segments. If cross-sector integration is relevant, on the other hand, then specialized, “silos” authorities might risk losing effectiveness, given that they focus on the nature of the entities they supervise, and not on the

¹ As will be seen, the European Supervisory Authorities are a partial exception to this rule.

business in which financial firms engage. Furthermore, the choice of the sectoral approach requires to have in place at least three regulators, which entails some degree of segmentation and might increase the (direct) costs of regulation and supervision: in fact, all three authorities would need to be separately funded and it is possible that the cumulative costs of the three supervisors turn out to be higher than the costs of integrated or single supervisors.

Typically, when a sectoral approach is chosen, the central bank is the body entrusted with bank supervision, while two separate authorities supervise securities and insurance sectors. However, some countries have adopted a sectoral but integrated model, where one authority is in charge of supervision of two financial market segments (e.g. banks and insurance) and another body is responsible for the other segment (e.g. the securities market). The choice on how to integrate sectoral supervisors is likely to be influenced by the synergies and interactions between sectors: for example, an integrated supervisor for banks and insurance firms might be more appropriate where the banking and insurance businesses are deeply integrated, for example with banks heavily involved in the insurance business (bancassurance).

As we have previously observed, the choice of the supervisory architecture boils down to a choice on how to allocate the different objectives of financial regulation across different authorities: under the silos approach, each sectoral supervisor aims to ensure that all objectives – micro-financial stability, macro-financial stability, transparency, efficiency and competition – are achieved in the specific, supervised sector. An alternative strategy is to focus on each goal with a cross-sector perspective: this is the approach “by objectives”, entailing one authority responsible for stability, one authority for transparency and conduct of business, one authority for competition. All these objectives have to be achieved by each authority not with reference to one specific segment of the financial markets, but for the entire financial market and across all its segments and businesses.

This type of institutional structure has been defined as a “three peaks” model (Di Giorgio and Di Noia 2001), in light of the three objectives assigned to three different authorities. If the goal of stability is divided into micro- and macro-financial stability, with two separate authorities, then this approach turns into a “four peaks” model. The approach by objectives appears particularly appropriate for financial markets with a significant degree of cross-sector integration: if financial institutions engage in a wide range of financial activities, the sectoral approach is likely to lose much of its effectiveness and focusing on cross-sector goals appears to be a more reasonable choice.

If the model by objectives is adopted, the central bank may be entrusted with micro-financial stability powers, beyond macro-financial stability (which is generally assigned to the

central bank anyhow), while another authority different from the central bank may be responsible for transparency and conduct of business. A possible explanation of the involvement of central banks as the bodies responsible for micro-financial stability might be that central banks have traditionally exercised control powers over the banking sector, for which stability has always been an extremely important, if not the most important goal. Transparency and conduct of business, on the other hand, relies to a large extent on interpretation of rules, standards and codes of conduct, and thus tend to be dominated by lawyers and require a different culture and expertise with respect to financial stability: this might help explain why in the three- or four-peaks model the authorities in charge of transparency is generally an independent authority different from the central bank. However, the model by objectives does not necessarily require that the central bank be the body entrusted with micro-financial stability: an authority different from the central bank might have the responsibility for micro-financial stability, leaving the central bank just with broad macro-financial stability tasks.

A third model of financial supervision is the functional approach (Merton 1992, Oldfield and Santomero 1995), according to which functions are more stable than the intermediaries that perform them, and therefore regulation should focus on functions rather than institutions. These functions may include, among others, payments settlement and clearing, risk management, diffusion of prices of financial products, inter-sectoral transfer of financial and economic resources across space and over time, origination of securities, distribution and packaging of securities. Under this approach, one regulator should be set up for each of these functions, leading to a substantially higher number of authorities relative to other approaches.

A benefit of the functional approach is that the same functions would be treated consistently – by the same regulator – regardless of the nature of the institution that performs them: firms would not be able to engage in regulatory arbitrage, i.e. carrying out a specific business through an entity which falls under the domain of the least strict supervisor. A drawback of the functional model is that the institutional structure would be even more fragmented than under a sectoral approach, and formidable coordination problems between authorities would be likely to arise. Furthermore, functions and activities do not fail, while institutions do: a further authority would be needed, along with functional regulators, to preserve stability (Padoa Schioppa 1988). The functional approach is certainly interesting from a theoretical point of view, but its implementation would be extremely complex: this probably explains why this model has not been particularly successful in practice.

All the models that we have described so far adopt some form of decentralization and fragmentation, given that more than one authority is involved in financial supervision. However,

institutional arrangements may also follow a centralized approach, whereby a single regulator is entrusted with regulation and supervision tasks over all segments of the financial markets – banking, insurance, securities - and for all the objectives – e.g. stability and transparency (leaving aside competition, which may be assigned to a different authority with a broader industry coverage, not limited to the financial sector). The establishment of a single regulator might be particularly suitable vis-à-vis financial markets which are deeply integrated on a cross-sector basis: under this perspective, a single regulator should be better able to mirror the integrated structure and functioning of financial markets. Moreover, economies of scale and scope might create cost savings relative to a fragmented architecture involving more authorities (regardless of the model, e.g. by sector or by objective). Coordination problems between different authorities would not arise and comprehensive monitoring and timely intervention could be facilitated. Furthermore, concentration of all powers under the same umbrella is likely to remove the risks of gaps or overlaps in supervision and of regulatory arbitrage, which might be there when the supervisory architecture is fragmented. Single regulators are typically assigned supervisory responsibility on stability and transparency for the entire spectrum of financial firms and markets: the focus on stability is generally aimed to micro-prudential stability i.e. the stability of individual financial institutions. Macro-financial stability, on the other hand, is generally left in the hands of the central bank.

A specific issue concerning the institutional arrangements for supervision has long been at the center of the debate both in the academic literature and at the policy level: the role of the central bank in banking and financial supervision. The assignment of banking supervision to the central bank has traditionally coincided with the choice on the combination of monetary policy and banking supervision²: consequently, the debate on the desirability of central bank as a supervisor has to a large extent boiled down to the analysis of advantages and drawbacks of the concentration of the two functions under the same institutional umbrella.

The choice to combine banking supervision and monetary policy is to a large extent path-dependent: the historical origins of central banks³ matter as well as banking and financial crises,

² This issue is likely to be less relevant for euro area countries, where monetary policy responsibility has been transferred to the European Central Bank since the introduction of the euro as a single currency: national central banks have only retained an indirect role in monetary policy.

³ Hawkesby (2000) identified three central banking models:

- the Bank of England model: established in 1694 as a private bank competing with other banks, it progressively developed supervisory skills due to repeated intervention to rescue the banking system, even though prudential supervision was formally assigned to the Bank of England only in 1979 (Banking Act), following the 1973-1974 secondary banks crisis (the Bank of England, however, lost supervisory powers in 1997, even though it retained responsibility for systemic stability):

- the U.S. Federal Reserve System model: the Fed was established in 1913 with the primary objective of preventing banking crises, which had repeatedly hit the country in the 19th century and at the beginning of the 20th century;

which generally play a key role in shaping a country's overall institutional structure for financial supervision. The main rationale to concentrate supervisory functions at central banks is the possibility to reap informational synergies between micro-prudential supervision and monetary policy: availability of information at the micro level might allow the central bank to achieve a better understanding of the monetary and macroeconomic context. A central bank not involved in micro-prudential oversight of banks might be less able to prevent and manage bank failures and systemic crises and also to perform effectively monetary policy functions. Vice versa, knowledge and expertise deriving from monetary policy, oversight of money markets and the payments system might be beneficial for supervisory activities.

A concern about establishing an integrated financial supervisor outside the central bank is whether it will be able to cooperate effectively with the central bank during a crisis. Crisis management requires rapid transmission and interpretation of information. In principle, interagency cooperation could ensure that information flows between agencies as readily as within agencies. An interagency crisis management committee may not function as effectively as a single authority that have all powers and incentives to initiate actions. Moreover, the so-called fallacy of composition, i.e. the fact that micro stability does not ensure macro stability, is one of the most important factor that called for a re-involvement of central banks in supervision after the 2008 global financial crisis, largely driven by the desire to bring both functions under the same umbrella and fix the previous misalignment in the allocation of micro- and macro-financial stability powers.⁴

One of the most controversial issues is the potential conflict of interests stemming from the assignment of supervisory responsibilities to the central bank, due to the risk that monetary policy might be influenced by considerations about banking stability issues, which might lead to a lax

monetary policy functions were assigned to the Fed only subsequently, in the 1920s (previously, monetary policy had basically been determined by the Gold Standard mechanisms);

- the Bundesbank model: the German central bank was established in 1957 and it was granted independence in the management of monetary policy, with the objective of safeguarding the value of the currency and ensuring price stability. To prevent conflicts of interest, it didn't receive explicit supervisory functions, not to undermine the credibility of monetary policy (for example, through distortion of inflation expectations). However, the lack of formal assignment to the Bundesbank of direct supervisory responsibilities does not imply that it is not indirectly involved in supervision. In fact, the German central bank was given the right to be consulted by the Federal Agency in charge of banking supervision, used to operationally participate to banking supervision and its consensus was compulsory for decisions that would produce consequences on monetary policy; moreover, the Bundesbank is involved in specific supervisory tasks also with the new single regulator structure. The Bundesbank model, with the central bank substantially and primarily responsible only for monetary policy, has represented the model for the European Central Bank, until the latter was entrusted with banking supervision in 2013. Moreover, even though the ECB has started to perform supervisory functions in November 2014, many national central banks - which are member of the European System of Central Banks - still have banking supervision powers and, rarely, supervisory functions also on non-bank financial sectors.

⁴ The 2007-2008 global financial crisis showed, however, that integrated regulators, both inside and outside the central bank, incurred in huge failures: thus the root of the problem does not seem to be exclusively in the dichotomy of the integrated regulator inside or outside the central bank.

attitude in the management of monetary policy. Some empirical evidence of such risk was provided by Di Giorgio and Di Noia (1999). They found the inflation rate to be considerably higher, and also more volatile, in countries where the central bank acts as a monopolist in banking supervision. They also note that “a general problem of inconsistent policy assignment can emerge, given that with just one policy instrument there are two objectives to control: a trade-off among monetary stability and micro-stability of financial intermediaries (in particular, banking intermediaries) may exist and be difficult to tackle” (Di Giorgio and Di Noia 1999, pp. 16-17). Monetary policy restrictions might exacerbate banks’ financial conditions and, ultimately, might hinder banks stability: as a result, if the central bank gives priority to the stability of the banking system, it is likely that no monetary restriction is adopted or even that an expansionary policy is preferred when a restriction is needed. Such behavior might also be determined by the asymmetric effects of supervisory performance: on the one hand, success of supervision generally pass unnoticed, while, on the other hand, authorities’ reputation and credibility may be dramatically hit by one or more, or systemic, bank failures. In turn, a lack or a loss of reputation and credibility caused by a highly visible failure in banking supervision may also seriously threaten the effectiveness of monetary policy. As stressed by Goodhart (2000), success in micro-prudential supervision is usually confidential while “failures” receive considerable adverse publicity, even when they should be regarded as evidence that the micro-prudential supervisor is performing its job effectively.

The degree of independence of the central bank also matters. More independent central banks are more insulated from political pressures and may thus be better able at keeping inflation lower. For this reason, the degree of independence of the central bank is often included among the control variables when estimating the impact of the supervisory role of central banks on the inflation rate (see, for example, Di Giorgio and Di Noia, 1999). Furthermore, Briault (1999, p. 28) noted that there might be a different cause-effect relationship, with the degree of independence of central banks having an impact on both the inflation rate and the combination of monetary policy and supervision: according to this view, the lower the degree of independence, the higher the probability that the two functions are combined and that the inflation rate is higher. The two latter variables would therefore be both dependent variables: independence would simultaneously determine both of them and there would not be a direct causation effect of combination of functions on the inflation rate. Consistently with this perspective, Goodhart e Shoenmaker (1995) noticed that the least independent central banks are the ones which perform both monetary policy and supervisory functions.

Generally, countries that have set up a single regulator have kept such authority separate from the central bank⁵: one of the rationales for this separation is to prevent an excessive concentration of power under the central bank umbrella. With a single regulator in place, the central bank is thus likely not to be entrusted with micro-stability tasks, while retaining a broader responsibility for macro-financial stability. The 2008 global financial crisis, however, has dramatically challenged the choice of taking micro-stability out of the central bank, as we will see in the next paragraph.

1.2 Evolving trends in the structure of financial supervision

1.2.1 Pre-crisis dynamics

The organizational structure of banking and financial regulation and supervision has undergone a deep transformation process over the last three decades. Banking and financial markets have been profoundly transformed by deregulation, conglomeration and globalization, which have led to the birth and growth of larger, diversified and multinational financial institutions. Starting in the late 1980s, the institutional organization of supervision has evolved in many countries to mirror the evolution in the financial industry: an increasing number of countries abandoned the sectoral approach to financial oversight. Sectoral supervisors were progressively replaced by single regulators or integrated regulators either by objectives or by sector.⁶

One of the key rationales behind this new approach – together with cost saving – was the blurring of the borders between the different segments of the financial market (De Luna Martínez and Rose 2003): the growing idea was that cross-sector integration in the financial industry required a cross-sector, integrated approach to regulation and supervision. The establishment of the UK single regulator, the Financial Services Authority (FSA), in the late 1990s was a milestone that further strengthened the wave of change in the approach to the structure of financial supervision: many other EU countries (including Germany) followed the UK example, though it may be interesting to recall that the United States didn't and have continued to rely on a complex web of numerous federal and state regulators. The assignment of supervisory powers to a single regulator was often accompanied by a reduction of the central bank role in financial supervision (Eichengreen

⁵ With some exceptions: Ireland is one of them. On the trade-off between the single regulator model and the involvement of the central bank in supervision see Masciandaro (2004, 2007).

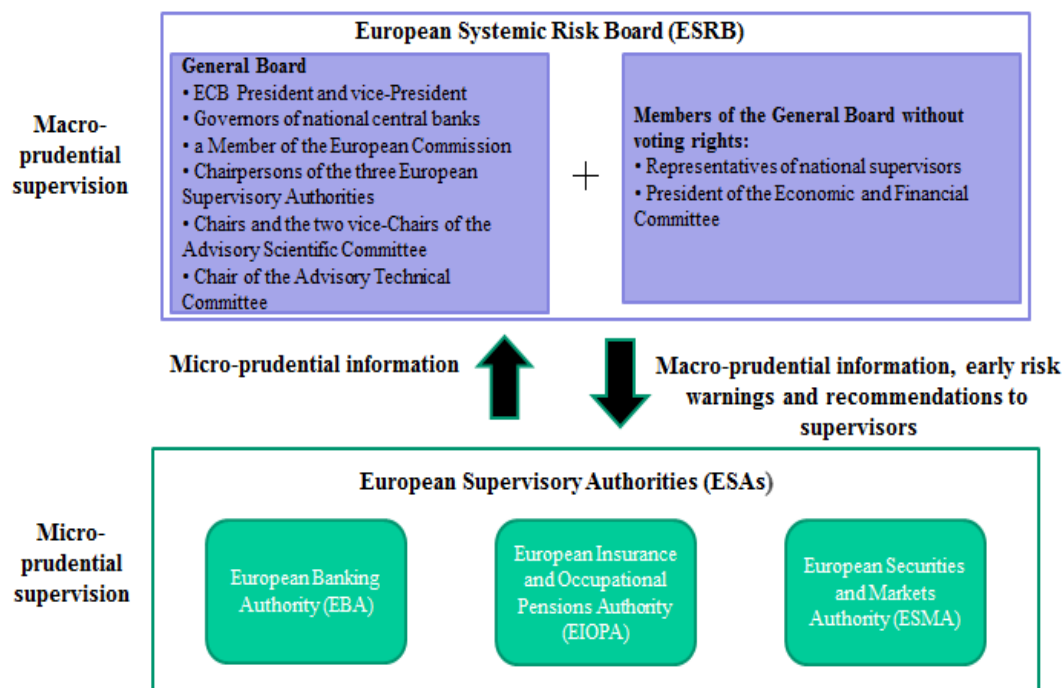
⁶ See Taylor (1995) on the “twin peaks” model; see Di Giorgio and Di Noia (2001) for a proposal of a four-peak model for the euro area. On the rise of single and integrated supervisors see Herring and Carmassi (2008). Other supervisory models, such as the model by functions and the model by objectives, while presenting interesting features from a theoretical perspective, have been scarcely implemented; see Merton (1992) and Di Noia and Piatti (1998).

and Dincer, 2011): this choice was mainly driven by the perceived risk that the concentration under the same umbrella of monetary policy and (banking) supervision would produce distortions and jeopardize the former (consistently with the empirical findings of Di Giorgio and Di Noia, 1999).

1.2.2 The structure of financial supervision after the crisis

At the EU level, immediately after the 2008 financial crisis, following the proposal presented in February 2009 by a group of experts chaired by Jacques de Larosière (de Larosière Group, 2009), the European Union introduced relevant changes to its architecture for financial supervision. A new EU body for macro-prudential supervision was created, the European Systemic Risk Board (ESRB); three micro-prudential supervisors were created, building up on the previous so-called Level Three (implementing guidelines) Committees, CEBS, CESR and CEIOPS, which became supervisory authorities and were named EBA (European Banking Authority), ESMA (European Securities and Markets Authority) and EIOPA (European Insurance and Occupational Pensions Authority). These new regulators were assigned a number of key tasks including the development of a single rulebook for financial markets in the EU, a mediation role between different national authorities and a coordination role in emergency situations. The three authorities were designed on the basis of a sectoral approach, following the traditional tripartition of financial markets, even though the possibility of a review has already been envisaged. A reciprocal flow of information must be exchanged between ESRB and the ESAs (Figure 1.1). It should be stressed that the establishment of the ESAs has not been effective at reducing the burden and the activities to be carried out by national authorities, and the related expected cost savings have not been reaped to date.

Figure 1.1: ESRB and ESAs



The establishment of the Single Supervisory Mechanisms (SSM) at the Eurozone/EU level, which became operational on November 4, 2014, has dramatically innovated the approach and structure of banking supervision in light of the new role of the European Central Bank (ECB) as the direct supervisor of the largest and systemic banking groups in Europe: about 130 European banking groups, accounting for circa 85% of total assets, have fallen under the supervisory umbrella of the ECB.⁷ Supervisory tasks are carried out by the Supervisory Board, a new internal body of the ECB, which is separated from the ECB Governing Council and thus from the monetary policy arm in order to minimize potential conflicts between objectives. National supervisors will retain direct supervisory powers on all other banks, but with regard to these banks the ECB shall issue regulations, guidelines and instructions to national supervisors; can intervene directly where necessary to ensure high supervisory standards; can request information and conduct investigations and inspections.

Therefore, the SSM is a network of supervisors, entailing an allocation and sharing of responsibilities between the ECB and national supervisors. The new system is thus likely to be

⁷ The ECB is entrusted with direct supervision of systemic banks, defined as those: i) with total assets exceeding € 30 billion; ii) with total assets exceeding 20% of national GDP (unless total assets are below € 5 billion); iii) being among the three most significant credit institutions in a member state; iv) identified by the ECB as significant either following notification by national supervisors or on its own initiative having regard to cross-border relevance; v) having requested or received public financial assistance directly from the EFSF/ESM.

more complex and articulated, also because at the national level different supervisory structures are still in place across EU countries: in some countries a sectoral approach remains (e.g. Spain, Greece, Portugal); in others, one supervisor is in charge of preserving financial stability, while a separate body oversees conduct of business and must ensure transparency (e.g. Netherlands and, to a large extent, Italy); some countries still rely on a single regulator (e.g. Germany and Ireland).⁸

Table 1.1 provides an overview of the organizational structure of financial supervision in selected advanced countries and illustrates, at least in part, the overall complexity of the current architectures. It should be noted that supervisory institutional arrangements do not always perfectly mirror a specific theoretical model: hybrid solutions may be identified, combining elements of different models. For example, France has adopted a model by objective, with the *Autorité de contrôle prudentiel et de résolution* (ACPR) in charge of stability and the *Autorité des marchés financiers* (AMF) in charge of transparency and investor protection. But the ACPR performs its functions with regard to banks and insurance firms, and it ensures investor protection for the clients of these firms: clearly, the approach by sector and the approach by objective are mixed. In Italy, the dominant approach is based on objectives, but two sectoral authorities oversee the insurance and pension funds sectors (Ivass and Covip, respectively).

⁸ The picture is even more complex where, as in Italy, recently created micro-authorities complement functions performed by the primary supervisors – and sometimes their tasks may overlap. Their powers may include the exercise of significant supervisory and disciplinary powers, keeping registers and verifying the fairness and transparency of their members' conduct. In turn, they may be subject to the oversight by the primary supervisors. However, their involvement in supervision is heterogeneous: some of these bodies have limited supervisory functions, while others may be fully considered supervisors.

Table 1.1: The structure of financial supervision in Europe, as of March 2015

| | Systemically Important Banks | Banks | Securities | Insurance | Central bank with primary responsibility for micro-prudential supervision? |
|----------------|------------------------------|----------------|------------|---------------|--|
| Austria | ECB | U/CB | U | U | yes* |
| Belgium | ECB | CB (P) / C | | | yes |
| Bulgaria | | CB | SI | | yes |
| Croatia | | CB | SI | | yes |
| Cyprus | ECB | CB | S | I (G) | yes |
| Czech Republic | | CB | CB | CB | yes |
| Denmark | | U | | | no |
| Estonia | ECB | U | | | no |
| Finland | ECB | U | | | no |
| France | ECB | P/C (CB) - BI | C - S | P/C (CB) - BI | yes |
| Germany | ECB | U | | | yes* |
| Greece | ECB | CB | SI | CB | yes |
| Hungary | | CB | CB | CB | yes |
| Ireland | ECB | CB | CB | CB | yes |
| Italy | ECB | P (CB) - C - I | | | yes |
| Latvia | ECB | U | | | no |
| Lithuania | ECB | CB | CB | CB | yes |
| Luxembourg | ECB | BS | BS | I | no |
| Malta | ECB | U | | | no |
| Netherlands | ECB | CB (P) / C | | | yes |
| Poland | | U | | | no |
| Portugal | ECB | CB | CB/S | I | yes |
| Romania | | CB | SI | | yes |
| Slovakia | ECB | CB | CB | CB | yes |
| Slovenia | ECB | CB | S | I | yes |
| Spain | ECB | CB | S | I (G) | yes |
| Sweden | | U | | | no |
| United Kingdom | | P (CB) / C | | | yes |
| EU/euro area | ECB | EBA/ECB | ESMA | EIOPA | yes |

* Some specific supervisory functions, e.g. setting regulatory framework, monitoring books, conducting inspections.

Source: authorities' websites. B=banks, I=insurance, S=securities, P=prudential, C=conduct of business, CB=central banks, G=government, BI,SI,BS=integrated by sector, U = single regulator.

A further element of complexity is related to the scope of application of the SSM (and, more broadly, of the banking union project), since all euro area countries will participate to SSM, while EU non-euro countries may join on a voluntary basis through 'close cooperation' agreements with the ECB, but may also choose to stay out (as already done by the United Kingdom). However, vis-à-vis this fragmentation related to supervision, regulatory functions at EU level have been assigned to the EBA for all EU member states, thus creating a complex and interesting asymmetry and geographical mismatch between regulation and supervision.

1.2.3 The new role of central banks in financial supervision after the crisis

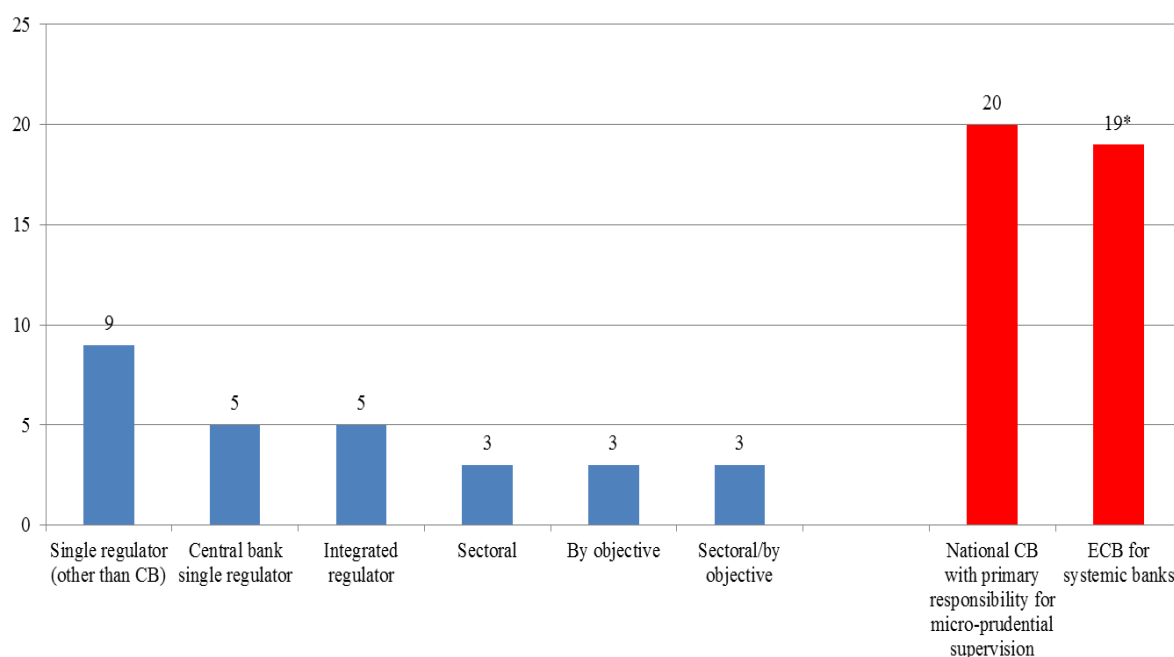
The 2008 financial crisis exposed pitfalls and shortcomings of the supervisory institutional arrangements that emerged after the first wave of reforms. In particular, the evident failure of the single regulator model led to a new wave of changes in the organizational structure of financial supervision. In the United Kingdom, the FSA was closed and micro-prudential supervisory functions have been taken up in 2013 by a new Prudential Regulation Authority (PRA) established within the Bank of England, while conduct of business tasks have been assigned to a new Financial Conduct Authority (FCA), separate from the central bank; finally, a Financial Policy Committee (FPC) has been created within the Bank of England and entrusted with the preservation of macro-financial stability. The attractiveness of the single regulator model has significantly decreased and, generally, central banks have now been entrusted with crucial regulatory and supervisory powers⁹: this is true for the Bank of England and the ECB in Europe, as well as for the Federal Reserve in the United States.¹⁰ Among the main drivers of this change, the need to bring under the same umbrella micro- and macro-supervision has certainly played a key role, since the crisis had highlighted the so-called “fallacy of composition”, i.e. micro-stability does not necessarily ensure macro-financial stability: having both functions performed by the same authority has now been regarded as a superior option to achieve both goals.

Therefore, while the first wave of reforms had significantly weakened the role of central banks in micro-prudential financial supervision, the trend has been reversed after the 2008 global financial crisis, both at the euro area level, with the new role of the ECB within the SSM, and in some countries. Figure 1.2 shows the number of European countries where the central bank has primary responsibility for micro-prudential supervision, along with a breakdown of the supervisory models. In the EU-28, in 20 countries the central bank is entrusted with primary supervision responsibility, whereas within the euro area in 14 out of 19 euro area countries the central bank is entrusted with micro-prudential supervisory powers.

⁹ For a recent study on financial crises and the role of central banks in supervision see Masciandaro and Romelli (2015).

¹⁰ The Federal Reserve was already entrusted with banking supervision tasks, but post-crisis financial reforms strengthened and expanded such powers, including pervasive supervisory powers on Systemically Important Financial Institutions (SIFIs) – banking groups with at least \$ 50 billion of consolidated total assets and non-bank financial institutions labeled as systemic by the Financial Stability Oversight Council. The Fed is also entrusted with early remediation powers on SIFIs (e.g. request of recapitalization, limits to asset growth, removal of management) and may apply risk mitigation measures (e.g. limits to M&A, business restrictions and even break-up); together with the FDIC, the Fed receives and evaluates resolution plans submitted by SIFIs and may request changes; if not satisfied, the Fed may impose stronger requirements or even breaking-up groups.

Figure 1.2: The structure of financial supervision in EU-28 Member States (number of countries, 2015)



* Number does not include non-euro countries that will participate to SSM on a voluntary basis through close cooperation agreements with the ECB.

It is evident that central banks have a key and increasing role in banking and financial supervision. Some questions arise: should the central bank involvement in supervision be regarded as a positive and effective institutional arrangement? Or is it preferable to house banking and financial supervision outside the central bank? As extensively discussed in the literature and confirmed by the 2008 financial crisis, like there is no consensus on an optimal structure of financial supervision, the involvement of the central bank in micro-prudential banking and financial supervision has also both pros and cons (Goodhart and Schoenmaker, 1995; Di Giorgio and Di Noia, 1999; Goodhart, 2000; Padoa Schioppa, 2003). For example, on the one hand, the combination of macro and micro stability functions at the central bank might help to better achieve both goals and the involvement of central bank in supervision might facilitate crisis management and resolution; on the other hand, potential conflicts between price stability and financial stability might arise, as well as risks of excessive concentration of power and the risk of an implicit extension of the safety net to non-bank financial institutions if these latter are also supervised by the central bank, with moral hazard implications.¹¹

¹¹ The rescue of large non-depository financial institutions (the insurance group AIG and the investment bank Bear Stearns) by the Federal Reserve in the 2008 crisis represents a clear example of the extension of the safety net and its potentially dangerous implications.

All in all, it may prove hard to determine whether the potential benefits outweigh the potential risks: the new stronger role of central banks in micro-prudential supervision is probably a rational response to the pitfalls of pre-crisis institutional arrangements, but it does not imply that risks have disappeared. While the objective of financial stability has been a key factor behind the new stronger role of central banks in supervision, it remains to be seen what might be the implications of the new arrangements for bank crises management and financial stability, as well as on a number of other macroeconomic variables (e.g. inflation) and the structure, functioning and profitability of the banking system. With regard to the SSM, the separation within the ECB between the Supervisory Board and the monetary policy arm aims to eliminating or minimizing the potential conflicts between their different objectives. Nevertheless, only time will tell whether such separation will be effective or if one of the two functions will produce distortions or even jeopardize the exercise of the other.

1.2.4 Some concluding remarks

More broadly, and quite apart from the issue of the central bank involvement in banking supervision, the 2008 global financial crisis showed that no model of financial supervision was able to perform better than the others: in other words, the key lesson was that no optimal structure of financial supervision exists. The systemic crisis hit banks and financial markets regardless of the institutional arrangements for financial regulation and supervision: it certainly hit the United Kingdom, the country that had had a leading role in the shift to the single regulator model; it hit countries where supervision was organized with a sectoral approach; it hit countries with a model of supervision by objectives; it hit countries where the central bank was in charge of supervision as well as countries where the central bank lacked oversight powers.

In particular, looking at post crisis reforms, the two main lessons drawn from policy-makers seem to be that: 1) the single regulator model is not necessarily the best model; and 2) splitting micro and macro-prudential supervision might be a risky choice, and the two functions should be combined under the central bank umbrella. As a consequence, some countries (e.g. UK and Belgium) have abandoned the single regulator model and reverted to the central bank as the key authority for banking and financial regulation and supervision. But the single regulator is still in place in other countries, like Germany, and in general changes in the institutional arrangements for supervision have been uneven and heterogeneous across countries, leading to a complex web of different national supervisory architectures.

On top of the complexity of national arrangements, the new European layers of regulation and supervision are likely to make the overall framework even more complex. The approach and the institutional choices on the creation of a EU level of regulation and supervision have been different and, to some extent, conflicting: regulatory functions on all financial market segments (banks, markets, insurance and pension funds) have been assigned to the three ESAs, set up with a sectoral approach, while supervision has been entrusted to the ECB, within the SSM, but just for banks and with a focus on stability. Moreover, ESMA is also entrusted with supervision of credit rating agencies and trade repositories, adding complexity to institutional arrangements; and, as recalled, EBA is responsible for the single rulebook for all EU countries, while supervision will have a narrower geographic scope only including SSM countries. The assignment to the ECB of banking supervisory powers on stability could not only create room for conflicts between different ECB objectives, but it might also make it more difficult to deal with potential conflicts between stability (ECB) and transparency (ESMA), leading to possible inter-agency conflicts.

The 2014 review of the ESAs and the European System of Financial Supervision carried out by the European Commission has been very prudent on possible changes to institutional structures: the report mentioned the possibility of moving to a “twin peaks” or a single regulator model and the need to take into account the banking union development, but it fell short of proposing significant changes in the near term, announcing further analysis of the issue with a medium to long term perspective (European Commission 2014a, 2014b). In light of the excessive complexity of current arrangements, the 2014 might be considered as a missed opportunity to rationalize the system and make it simpler, more consistent and more effective.

Finally, the establishment of a banking union might create a further asymmetry, in absence of a broader and more structured financial union. There is a need to rationalize and simplify the legislative framework on financial markets, possibly concentrating all rules in a single rulebook for financial markets in the EU: the current legislative regime is excessively complex and formal compliance with such rules is likely to be excessively burdensome for the financial industry, with a potential to jeopardize compliance with rules from a substantial point of view. Also, supervision should be centralized at the European level, as it has been done for the banking sector, eliminating or minimizing the room for divergent supervisory practices, which currently prevent from the creation of a level playing field and may be exploited to reap competitive advantages.¹² The capital markets union project recently launched by the European Commission (2015) might play a crucial

¹² For a proposal along these lines see Consob (2014), where the twin-peaks model is proposed as the benchmark for the reform of the European institutional arrangements on financial supervision. However, as recalled, the European Commission has not taken a strong position in this regard in his 2014 report on the review of the European System of Financial Supervision.

role in this domain.¹³ Though rules disciplining the markets for financial instruments are common to all European countries, financial supervision is still run based on national, and to some extent different, level. Differences among European countries in the development of financial markets, in their financial culture and traditions, as well as, the ESMA's limited enforcement power provide tremendous obstacles to the centralization process of financial markets supervision. Having a strong European authority in charge of regulation and supervision is essential to actually harmonize supervisory practices and benefit from a concrete institutional simplification.

The complexity of the institutional structures of financial supervision is likely to be particularly burdensome for large European and global cross-border banking and financial groups, which are obliged to deal with a huge number of supervisors in the multiple jurisdictions where they operate: supervisory fragmentation is thus likely to produce a cost for financial institutions. The introduction of new set of rules will make even more difficult the competitive scenario for many financial intermediaries in Europe. In fact, the new revisions of MiFID and IMD directives, as well as the PRIIPs regulation, are expected to set out a wide range of issues and significant changes in market participants' behavior and in their responsibilities. MiFID II and IMD2 touch many operational areas of financial intermediaries and insurance companies. In particular, new rules in terms of inducements, conflicts of interests, increased disclosure and transparency, remuneration policies will generate overall new compliance costs, especially for those intermediaries providing complex products and services. These changes will inevitably call for a revision in the current supervision and compliance systems. Thus, the structure of financial supervision must be taken into account when trying to estimate and evaluate the costs and benefits of financial regulation and supervision, which is what we will do in Chapter 2 and Chapter 3 of this research.

¹³ The key objectives of capital markets union are the following: i) improve access to finance for all businesses and infrastructure projects across Europe; ii) help SMEs raise finance as easily as large companies; iii) create a single market for capital by removing barrier to cross-border investments; iv) diversify the funding of the economy and reduce the cost of raising capital.

Chapter 2

The costs of financial supervision

2.1 The costs of financial regulation and supervision

The costs of financial regulation and supervision are as difficult to assess as important. According to Franks et al. (1997), there are three main difficulties in defining these costs. First, direct costs associated with the functioning of the regulatory agencies represent only a part of the total cost of regulation. Beyond direct costs there are internal costs borne to comply with the regulations, as we will discuss. Second, neither the direct nor the compliance costs are necessarily fully incremental, as they do not take into account the costs which would be incurred by the industry in the absence of regulation.¹⁴ Third, in assessing the regulatory burden, we might wish to distinguish between transfer payments between parties, such as compensation payments, and the dead-costs represented by the amount of resources used in running regulatory agencies, in order to give them a different weight.

The first, necessary step to carry out an analysis is to define the costs of regulation, that can be classified as follows¹⁵:

1) *direct costs*, i.e. costs which are borne by authorities, the financial industry and the state or society as a whole to allow the effective performance of the regulatory and supervisory activity in its various forms, from rules production to enforcement. In line with Schuler and Heinemann (2005), our empirical evidence will show that these costs are usually borne by the regulated industry through fees which often cover almost entirely the supervisory authority's budget;

2) *indirect or incremental costs*, which are paid by supervised entities to comply with regulatory requirements. These costs may be regarded as incremental relative to an alternative scenario without regulation and without regulators. Such incremental costs include both the costs borne by the supervised entities to comply with the rules – *compliance costs* – and the costs to inform authorities that the regulatory requirements have been met – *information costs*. Direct costs are generally shifted to a large extent to the industry through the imposition of supervisory fees: therefore, direct costs are a component of compliance costs. A specific type of incremental costs is related to profits

¹⁴ For example, suppose securities firms must, under current regulations, maintain minimum capital requirements based on the size and riskiness of their positions. Since good managers would control the relation between the size of their firms' positions and their capital, not all the costs associated with capital requirements should be regarded as incremental. On the other hand, regulation may partially substitute for a firm's monitoring of counterparty risk which the firm would carry out in the absence of regulation.

¹⁵ Here we will follow the taxonomy proposed by Briault (2003).

that a firm foregoes because it must use the resources that it would have invested in the profitable project to comply with regulatory requirements. Franks et al. (1997) have estimated a 4:1 ratio between the incremental costs and the direct costs. Another example of incremental costs is that of higher capital requirements imposed on the banking industry to better preserve micro and macro-financial stability: the debate on the costs of stricter rules and on the potential benefits in terms of a higher degree of stability, on one side, and the possible negative effects on credit for households and firms, on the other side, effectively shows the difficulty of measuring these costs, and especially of finding a consensus on the quantitative impact;¹⁶

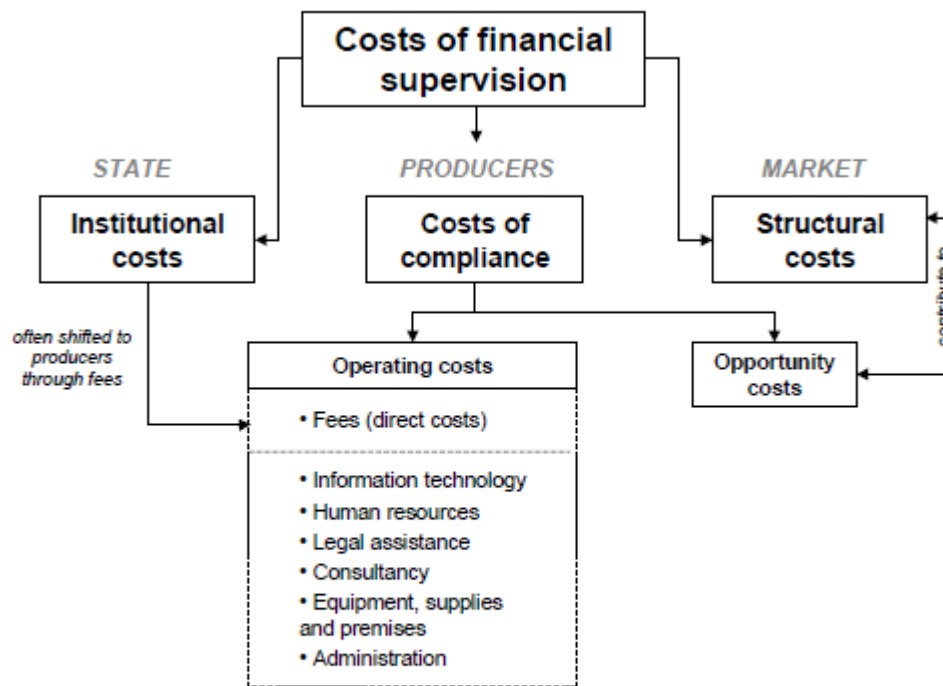
3) *distortion costs*, stemming from the potential distortions created by regulation: they might, for example, discourage firms from entering a specific market that they would have entered in the absence of regulation and regulators. In general, these costs relate to the potential distortive effects on markets structure and products – and even on their existence. Clearly, if regulation is well designed, such distortion costs should be more than compensated by the benefits brought by regulation.

Goodhart (1988) proposed a wider taxonomy of regulation costs, identifying the following five types: 1) the direct resources costs of the regulatory system – people, equipment and buildings – which could have been used for other purposes; 2) costs that may fall on supervised entities in order to finance the supervisor; 3) the possibility that additional resources, for example, of skilled labour, might have been attracted to work in relatively high value-added activities, but have been discouraged by the additional burden of the regulatory system; 4) the possibility that regulation may lessen competition, raise costs and lead to static inefficiency; 5) the risk that regulation may hinder innovation in financial intermediation, leading to dynamic inefficiency. It should be noted that the third, fourth and fifth type of costs may all fall under the distortion costs category mentioned above.

Schüler and Heinemann (2005) have also provided a similar classification of the costs of financial supervision identifying the following three categories of costs: institutional costs (direct costs), costs of compliance and structural cost. Their graphical representation (reported in Figure 2.1) shows how institutional/direct costs are shifted to the industry and thus can be interpreted both as direct costs and as a relevant component of compliance costs. Their structural costs category refers to the impact on products and markets produced by regulation and substantially corresponds to the previously defined distortion costs.

¹⁶ On the costs of financial regulation see, for example, Elliott et al. (2012).

Figure 2.1: The costs of financial supervision



Source: Schüler and Heinemann (2005).

Schüler and Heinemann (2005) focused on the cost of fragmentation of the institutional architecture of financial supervision, with a particular attention for the cost saving potential from a reform of the European supervisory system towards a more efficient framework. Multiple supervisors might increase costs for the industry, for example because firms have to pay fees to more authorities; because institutions should talk to many authorities, both at the national and international level, posing formidable challenges for both firms and regulators; or because they would have to comply with many different sets of reporting requirements with different content and format, which is likely to substantially increase compliance costs. Fragmentation costs should be analyzed in conjunction with the potential benefits of a fragmented structure of financial supervision in order to evaluate whether and to what extent such costs are compensated – or not – by benefits (e.g. higher sectoral specialization of supervisors facilitating dialogue with supervised entities).

The computation of the direct costs of regulation and supervision appears relatively easy: data on costs borne by supervisors are generally publicly available (with some exceptions), as well

as their revenues; and so are the fees levied on the industry and the State contribution, where present. On the other hand, calculating incremental costs (except supervisory fees) and distortion costs presents formidable challenges. Studies on these costs typically rely on surveys submitted to representative samples of supervised entities: in these surveys, firms are asked to describe what choices, behavior and operating strategies they had to adopt in response to the requirements imposed by regulation. Surveys offer homogeneous and comparable results. However, it may be hard for the firms to exactly identify what their choices and strategies would have been in absence of regulation: in fact, firms should make assumptions not only and not simply on their hypothetical alternative behavior, but also on the potential alternative choices of other firms in absence of regulation. Absence of regulation would probably significantly change the structure, functioning and dynamics of the market. Since it would be extremely complex for firms to make assumptions on other firms' choices in the absence of regulation, their answers will be biased: they will respond based on a scenario where they are not subject to regulation but other firms are. Based on Franks et al. (1997), estimates of the incremental costs of regulation are augmented by the fact that while firms can imagine an environment where they are not regulated, it appears far more difficult for them to conceive a totally unregulated industry.

Another possible methodology to estimate incremental costs likely to be produced by a new rule is to look back at the effects of similar regulatory measures introduced in the past, or in other countries. Therefore, this approach requires a benchmark too, i.e. that the incremental costs have already been estimated once, and does not solve entirely the problem.

Alfon and Andrews (1999) emphasized the complexity related to the estimation of incremental costs as well, observing that they depend on views about choices and activities that would be undertaken in the absence of regulation. They also pointed out that, even for an individual regulatory measure, it would be hard to obtain a single vision on its impact, which is going to be different for different firms.

While the effects of incremental and distortion costs are crucial, our study aims to provide a detailed overview of direct costs, and the portion of compliance costs corresponding to direct costs. Even though direct costs are not an exhaustive measure of the costs of regulation and supervision, their analysis is a necessary starting point. Moreover, to our knowledge few studies have been developed on the direct costs of supervision to date¹⁷, even though their estimation is relatively easier than for the other classes of costs, and none of them has the scope of this research. Our empirical analysis aims to provide estimates for the direct costs of supervision both with cross-

¹⁷ See, for example, Carmassi (2004) and Schöler and Heinemann (2005).

section (different authorities in different countries) and time series data (2004-2013, when data are available for the entire period).

2.2 An empirical analysis of the direct costs of financial supervision

2.2.1 Some preliminary caveats

Our empirical analysis is focused on the direct costs of supervision, which can provide extremely useful information both on the expenses of supervisors and on the burden on supervised entities: in fact, in most cases, authorities are almost entirely funded by industry contributions. The prevailing role of the market funding mechanism relative to the public funding approach reflects the dominant view that the industry should pay the costs of supervisors because supervised entities are liable to produce negative externalities on the financial markets, and on the economy as a whole: they should be called to pay a “price” in order to prevent such externalities and internalize their costs through supervisory fees. In recent years even supervisors which used to rely to a large extent on public funding progressively shifted to a funding mechanism based on industry fees and without a state contribution.

Therefore, the costs borne by authorities are costs for the industry, and their analysis is crucial in order to understand and evaluate the impact of the supervisory actions on the industry. As discussed in paragraph 2.1., this impact only catches a direct and monetary effect, and many indirect implications should be also taken into account. Nonetheless, the study of direct costs is a necessary step.

Another caveat is that information obtained through the analysis of direct costs must be interpreted very carefully, for a number of reasons. The first one is that higher or lower costs do not necessarily mean lower or higher efficiency: costs level is likely to depend on a wide range of factors, starting from the size of the supervised entities and markets, and cannot be automatically read as an indicator of supervisory “efficiency”.

Second, when comparing costs of different supervisors, it must be kept in mind that different supervisors often have different tasks and a different scope of activities: for example, the costs of a sectoral supervisor cannot and should not be compared with the costs of a single regulator as if they were performing the same functions.

Third, the analysis of direct costs does not make it possible to disentangle in a systematic way for all authorities the costs related to regulatory tasks from those related to supervisory

activities. Disentangling these two types of direct costs would be particularly useful, but to our knowledge it is not a feasible task, also because a clear breakdown of staff figures between staff involved in regulation and staff involved in supervision is not made available in a systematic and homogeneous way across authorities and across countries. For simplicity, we will generally refer to the costs of supervision, but we are aware of the potential overlap between costs of supervision and costs of regulation.¹⁸

Fourth, the costs of supervision are only one side of the coin and should be analyzed in conjunction with benefits: for example, a supervisor with higher costs might be more efficient and better able to achieve its goals than a “cheaper” authority, so one should be extremely careful when trying to infer information on efficiency from data on costs.

2.2.2. Heterogeneity of supervisory structures across our sample countries

Taking into account all these caveats, we can now move to the analysis of the direct costs of a group of selected financial supervisors in some of the largest European countries: we will focus on Italy, Germany, France, Spain and the United Kingdom. We will also include in the data analysis the three European Supervisory Authorities, EBA, ESMA and EIOPA: in this regard, a further fundamental caveat is that they mostly perform regulatory rather than supervisory functions, with the partial exceptions of ESMA. Finally, we will also discuss some data regarding the so-called “micro-authorities”.

Before going into depth into data analysis, it is of essence to recall that supervisory structures are significantly different across the countries on which we have chosen to focus. In Italy, the supervisory structure is largely based on an approach by objective, whereby Consob is responsible for transparency and conduct of business and the Bank of Italy is in charge of preserving stability. However sectoral features remain: Ivass, an internal body of the Bank of Italy that in 2013 took the place of the former independent insurance regulator, Isvap, supervises the insurance sector, and Covip oversees the pension funds industry. Therefore, despite a shift in recent years towards a model by objective, the sectoral approach has not disappeared yet, even though it has been significantly weakened.

In Germany, BaFin was established in 2002, during the first wave of post-FSA reforms, and incorporated three previous supervisors organized on the basis of a sectoral approach. Its internal

¹⁸ This problem is less relevant for the three European Supervisory Authorities, whose activities are largely focused on regulation, with the partial exception of ESMA supervision of credit rating agencies and trade repositories.

structure still mirrors the former sectoral separation, with internal departments for banking, securities and insurance business; but BaFin is a single regulator, meaning that it is responsible for the oversight of the entire financial market. BaFin is an independent authority and the central bank, the Bundesbank, only carries out some specific supervisory functions. The post-crisis wave of reforms of supervisory architecture has not produced a change in the German model, at least to date, so that the single regulator is still in place, unlike in other European countries such as Belgium and the United Kingdom.

France has significantly simplified its supervisory architecture over the last ten years. It moved from a complex system with multiple authorities to a mixed model by objective and by sector where the ACPR is responsible for stability (including resolution tasks) and the AMF is in charge of transparency and conduct of business; but the ACPR must ensure stability and investor protection for the banking and insurance business, thus following a sectoral (integrated) approach. The ACPR is housed within the central bank, the Banque de France, and was formed in 2013 through the assignment of resolution powers to the ACP: the ACP had been established in 2010 through the merger of three authorities (two on insurance and one on banking), with the responsibility of prudential supervision and stability.

In the United Kingdom a single regulator separate from the central bank, the Financial Services Authority, had been established in the late 1990s: after the 2008 financial crisis, the FSA has been abolished and its functions split and assigned to two new different authorities. Since 2013 a new body set up as a subsidiary of the Bank of England, the Prudential Regulation Authority (PRA), is responsible for prudential regulation and stability of individual financial firms, with a cross-sector approach. The transparency and conduct of business powers have been taken up by the new Financial Conduct Authority (FCA).

In Spain, a sectoral approach is followed: the central bank supervises the banking sector, the CNMV oversees the securities markets and the Dirección General de Seguros y Fondos de Pensiones (within the Ministry of Economy) oversees the insurance sector as well as pension funds.

At the European level, the three ESAs have been designed on the basis of a sectoral approach: EBA for the banking sector, ESMA for securities markets and EIOPA for insurance and pension funds.¹⁹ With the exceptions of supervisory powers of ESMA on credit rating agencies and trade repositories, the three ESAs are entrusted with regulatory powers, not with supervision functions. However, with the start of the Single Supervisory Mechanism in November 2014, the

¹⁹ The focus of this study is on micro-prudential regulation and supervision authorities: for this reason, the analysis does not include the European Systemic Risk Board, which is entrusted with a macro-prudential supervision mission.

ECB is responsible for banking oversight, with direct supervision powers on the largest euro area banks and indirect supervision of other banks. The costs for the supervisory tasks performed by the ECB will be covered by fees levied on credit institutions.²⁰

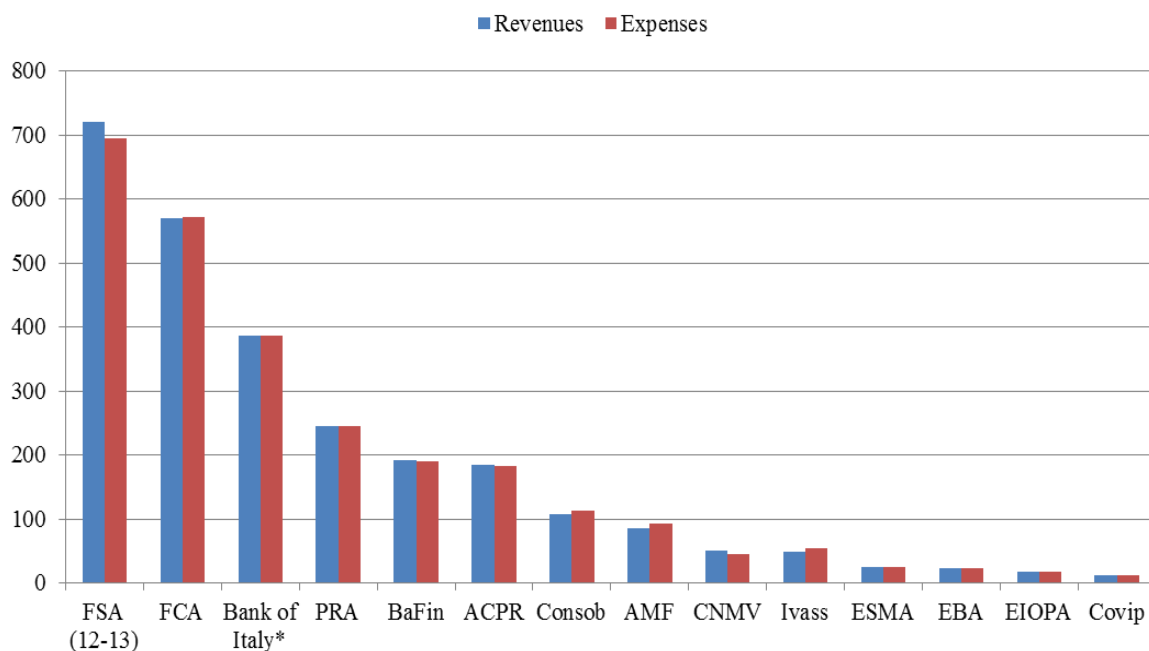
This overview of the institutional arrangements for financial supervision in different countries suggests that the comparison of revenues and costs should be prudent and that different scope of activities as well as the different size of the overseen industry must be taken into account. Also, it should be noted that, while in general financial statements of supervisors other than central banks are readily available, disentangling supervision data from the financial statements of a central bank may prove hard, if possible at all. For this reason, we have been able to estimate some figures for the Bank of Italy (but not a complete time series), and we have not been able to collect data for the Bank of Spain. The situation is different when the central bank performs supervisory functions through an authority set up under its umbrella, in which case financial accounts of the authority are generally available.

2.2.3. Evidence on direct costs of financial supervision

Turning to data analysis, it is clear that the size of different authorities is highly heterogeneous. We measure the size of supervisors through revenues and costs (Figure 2.2). The two measures are often extremely close: costs are paid mostly with fees raised on supervised entities, and such fees are determined so as to cover supervisors' costs. Some authorities obtain quite large surplus, and this surplus may be accounted among revenues for the following year: in our data analysis, we have chosen not to include this number in total revenues of authorities, in order to be able to focus only on the revenues of each year corresponding to the costs borne. Figure 2.2 indicates that the size of UK authorities is by far the largest, both with the now abolished FSA and with the new regulators by objectives, PRA and FCA. The Bank of Italy follows, while BaFin and ACPR are half as big as the Bank of Italy supervisory division in terms of costs of supervisory activities. All other authorities are much smaller.

²⁰ See Article 30 of Regulation (EU) No 1024/2013 establishing the SSM; and Regulation (EU) No 1163/2014 of the European Central Bank of 22 October 2014 on supervisory fees (ECB/2014/41).

Figure 2.2: Size of supervisors, revenues and expenses 2013 (mln euro)



*The figure on revenues of the Bank of Italy for supervisory activities is estimated and made equal to the reported figure on the cost of supervisory activities. Source: supervisors' data.

Looking at time series for each supervisor (see the figures included in the Appendix to this Chapter), an increasing trend may be generally observed over time: in some cases (e.g. FSA and BaFin), the size of supervisors has significantly increased after the 2008 financial crisis, probably signaling an increase in the efforts and in the economic resources committed to financial regulation and supervision after the recent failures. The same indication comes from the data on the number of workers of supervisors, as we will see.

The second area of interest concerns the sources of funding: for most authorities, a percentage higher than 90% and often very close to 100% of total revenues comes from fees levied on supervised entities. Little role is played, in our sample of supervisors, by the State contribution: it was a relevant share of the funding for Consob and Covip in the past, but it has now been eliminated. The dominance of the funding through fees levied on the supervised entities turns the issue of expenses of supervisors into an issue of costs for the industry.

The funding mechanisms of supervisors have been extensively debated.²¹ On the one hand, the state might be called to pay the bill because authorities pursue objectives which are of public interest, such as a financial stability, transparency and the protection of investors and savers. But a key role of the state in the financing of supervisors might weaken the independence of supervisors, and it might even cause an exposure of supervisors to political pressures. Removing the state contribution was aimed exactly to eliminate or minimize the risk of government interference, in an environment where financial markets had been progressively freed from regulatory constraints and state interventions in recent decades (at least until the 2008 financial crisis). On the other hand, a funding mechanism based on industry fees might create a different problem: the risk that supervisors are “captured” by supervised entities. And, if the amount of contributions is based on the revenues of supervised entities, a market-based system could also produce a pro-cyclicality problem: revenues for supervisors would decrease in times of crisis, exactly when more resources are likely to be needed to exercise effective supervision. In this case, the market funding mechanism would not necessarily ensure financial independence (Di Noia and Piatti 1998).

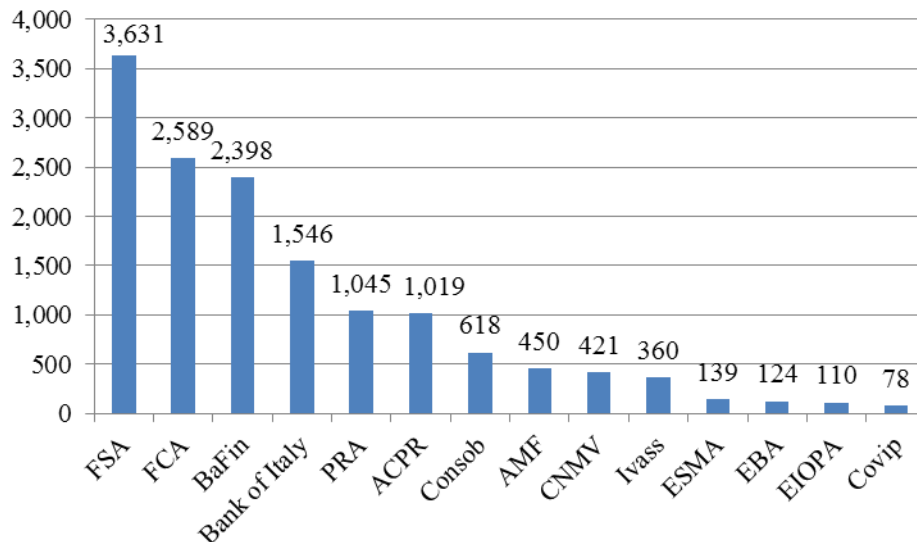
The component of total expenses which is by far the most relevant is the cost for personnel, including net salaries as well as taxes and pension contributions. The share of this cost on total costs is generally between 60% and 80%: therefore, fees levied on supervised entities are to a large extent used to cover staff costs and, for this reason, an analysis of these costs appears particularly important, also to evaluate the impact on the industry of the market-based funding mechanism.

In this regard, a first measure to be considered is the number of people working for supervisors: in this count, we have included all types of workers, not only full-time employees but other categories as well, e.g. workers with temporary contracts, since they all have a cost for the supervisors. As shown in Figure 2.3, the size of supervisors in terms of staff has a huge variance across authorities: the UK FSA, which ceased its operation in early 2013, was by far the largest among the supervisors we focus on, with 3,631 workers as of 31 March, 2013. After the FSA was dissolved into the FCA and the PRA, its staff was split between the two new authorities, with the FCA retaining about 71% of the staff (2,589 as of 31 March 2014) and the PRA keeping about 29% (1,045 as of 28 February 2014). At the end of 2013 the second largest supervisor by number of staff units was the German single regulator BaFin (2,398), followed by the supervisory department of the Bank of Italy (about 1,540 based on our estimates), the UK PRA (1,045) and the French ACPR (1,018.5; yearly average figure). All the other supervisors in our sample have a number of workers well below 1,000, with the highest value for Consob (618) and the lowest value for Covip (78). The

²¹ For a cross-country analysis of funding mechanisms of supervisors see Masciandaro et al. (2007). For a study on the financing of independent authorities, including non-financial authorities, see Assonime (2011).

ESAs, the Italian Ivass and the Spanish CNMV are in a range between 100 and 421. But it should be noted that the Ivass is housed at the central bank, therefore its 360 workers might be added to the Bank of Italy figure.

Figure 2.3: Staff of supervisors (units), yearend 2013*



*March 2013 for FSA. Annual average for ACPR. Our estimates for Bank of Italy (22% of total staff is reported to be involved in supervision). Source: supervisors' annual reports and other official documents.

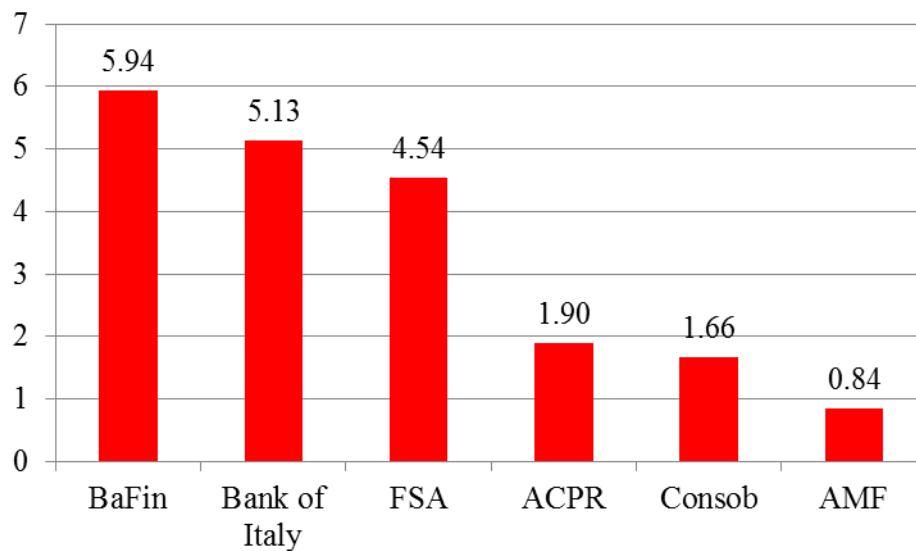
Some first considerations may be developed. First, single regulators appear to have larger staffs, which is not surprising since they have responsibility for the entire financial markets and for all objectives, unlike sectoral authorities or supervisors by objective. Second, the Bank of Italy staff for supervision and the staff of PRA and ACPR (both housed at the central bank) are both above 1,000: for all three cases the model of supervision is substantially by objective and they are all responsible for stability, suggesting that stability might require a larger staff than other objectives and sectors. However, while this seems true with cross-country comparisons, the splitting of the FSA staff between the PRA and the FCA seems to indicate an opposite relationship, with many more workers focused on transparency and conduct of business.

Finally, unsurprisingly, the three ESAs have fewer workers than most other supervisors, despite their European scope of activities: as recalled, they are mainly engaged in regulation, not supervision. The number of workers employed by the ECB to conduct its new supervisory functions

will certainly provide interesting additional information on the size of the European layer of regulation and supervision.

Since the size of the supervised financial markets can be different, we have calculated a ratio between the number of staff of supervisors and the size of financial markets (for authorities with responsibilities on the entire financial market, e.g. single regulator or by objective, to make comparisons meaningful). Figure 2.4 shows that single regulators are still those with larger staff, even after controlling for the size of the financial markets. Another interesting information provided by the figure is that a “central bank effect” seems to be present: though its supervision does not cover all financial sectors, the number of the Bank of Italy staff involved in supervision, compared to the size of financial markets, has a magnitude which is in line with other single regulators, much higher than the other supervisors by objectives.²² Therefore, after correcting for financial markets size, single regulators remain among the largest, but supervisors other than single regulators may also have a considerable size.

Figure 2.4: Ratio between staff units of supervisors and size of financial markets* (2013)



*Size of financial markets calculated as the ratio between bank assets, stock market capitalization and debt securities over GDP. Sources: supervisors' data for staff, IMF Global Financial Stability Report October 2014 for financial markets size.

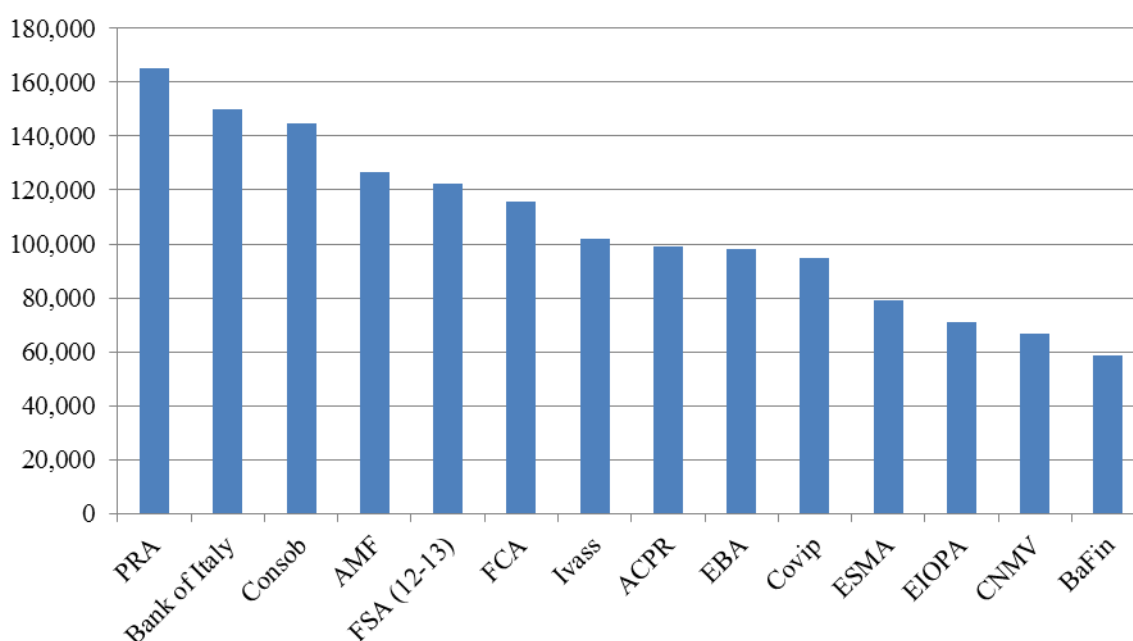
Times series on the number of staff units for each authority also provide useful information: generally supervisors tend to expand their work force over time. BaFin and FSA, the two supervisors with a large post-crisis increase in the amount of their revenues and costs, also

²² In this calculation we have included in the Bank of Italy figure the IVASS staff.

experienced a huge increase in their staff. For the FSA, the increase from March 2007 to March 2013 was of about 900 units, a +33% change; for BaFin, the increase was of about 700 unit, or +41% (see figures in Appendix).

Once we have discussed the size of authorities measured by the number of human resources employed, the next step is to measure the per capita cost of staff. The key rationale behind this measure is that the cost of personnel is the largest cost for supervisors and it is a key driver affecting the amount of fees to be raised from the industry. The absolute value of such costs is correlated with size of the authorities, i.e. it is likely to be higher when the supervisor is larger (for example because it is a single regulator) and lower for smaller supervisors (e.g. sectoral authorities). In order to get more precise information about the costs for supervisory activities and their impact on the industry we need to relate the costs of staff to the number of staff employed. In fact, our results, reported in Figure 2.5 for 2013, show that single regulators are not necessarily the most costly in terms of unitary cost of staff; and that, on the other hand, regulators with a narrower mandate than single regulators may have higher figures in terms of per capita cost of staff.

Figure 2.5: Per capita cost of staff (euro), 2013



Source: computations on supervisors' data and financial statements.

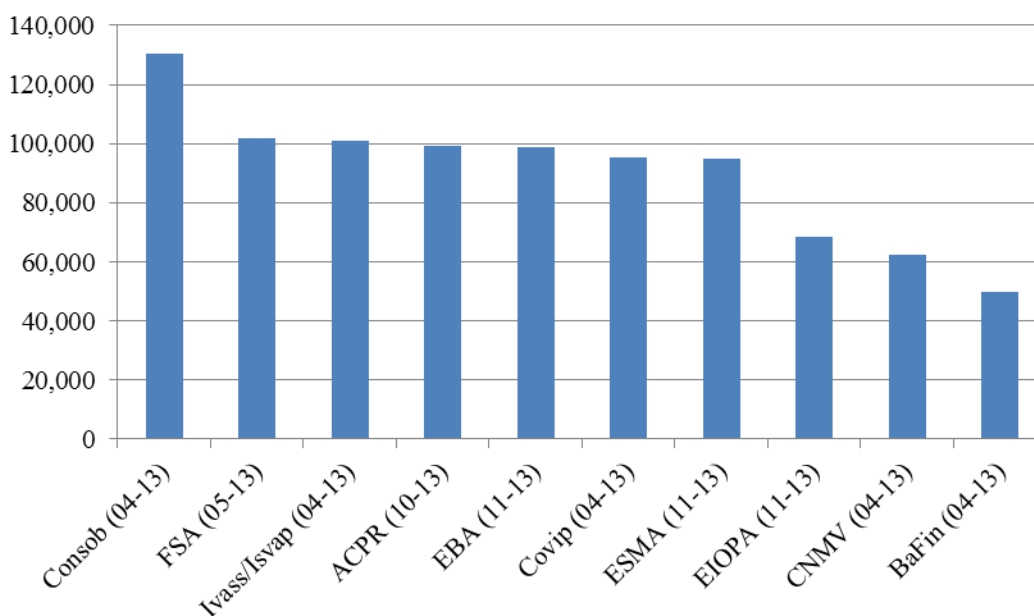
A crucial methodological issue must be emphasized here: the unitary cost of staff is calculated as the ratio between the total costs of staff, including salaries, tax and pension contributions, and the number of staff units. This implies that the per capita cost of staff we use does not indicate the average salary of workers, but their average cost for authorities. The reason why we focus on average cost rather than average salaries (which is certainly an interesting information as well), is that we use the measure to catch the impact in terms of overall costs for supervisors, which turn into fees for the industry. Supervised entities pay their fees on the basis of expected expenses, inclusive of all costs, and the total costs for staff do not include only net salaries. Clearly, the taxation rate in each country as well as the pension and social contributions rate will determine the level of the total costs of staff, given the amount of net salaries: therefore, the unitary cost of staff reflects also these factors and might be higher or lower for authorities of different countries due to differences in these variables.

The UK PRA in 2013-2014 had a unitary cost of staff of 165,000 euro. The figure for the Bank of Italy (based on our estimates since precise figures are not publicly available)²³ was about 150,000 euro, while Consob had a value of about 145,000 euro. The UK FSA had a unitary cost of staff of 122,000 euro in its last year of operations, while the FCA had a value of 115,000 euro in 2013-2014 and Ivass of 102,000 euro (again, it should be recalled that Ivass is an internal body of the Bank of Italy). The ACPR and EBA had a unitary cost of staff close to 100,000 euro and Covip was at 95,000 euro. ESMA and EIOPA lie between 70,000 and 80,000 euro, while CNMV had a value of 66,000. Finally, BaFin has a relatively very low value of about 58,000 euro.

The first indication that may be drawn from these numbers is that the scope of the activities of regulators is not necessarily correlated with the unitary cost of staff: for example, BaFin has a very low figure despite being a single regulator, while on the other hand supervisors by sector or by objective (e.g. PRA, Bank of Italy, Consob) have a much higher per capita cost of staff. If we consider the average over a 10-year period, from 2004 to 2013, data indicate the same results, with Consob being the supervisor with the highest per capita cost of staff, followed by the FSA and by Ivass/Isvap. CNMV and BaFin have even lower average values in relative terms, with respect to 2013 (Figure 2.6). For other authorities averages are generally in line with 2013 data, but are calculated on a shorter period because those supervisors were only set up in recent years.

²³ We have estimated the cost of staff for supervisory activities as the 60% of the total cost of supervision. The 60% is the lower bound of the range observed for other authorities for the ratio of cost of staff to total expenses: therefore, our measure is prudent and might underestimate the cost. More transparency in the disclosure of segmental data on supervision might help and appears desirable for central banks.

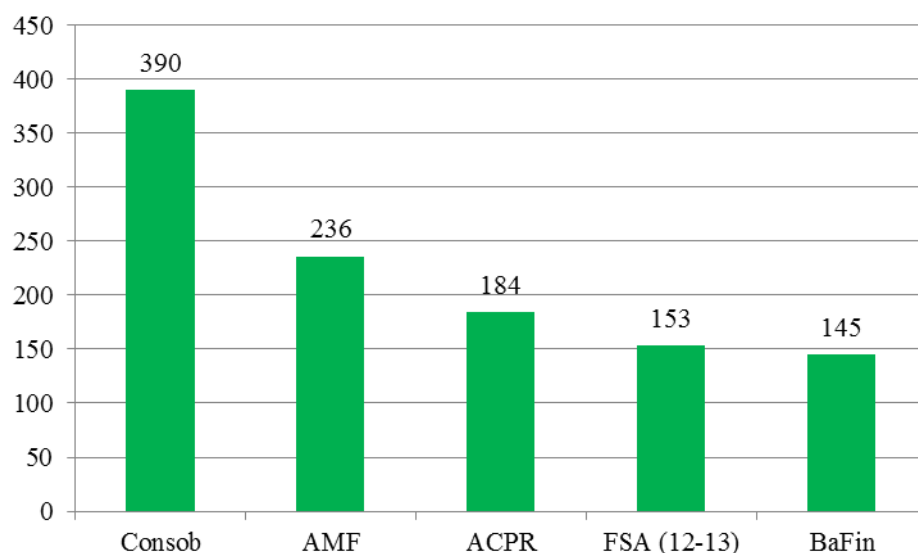
Figure 2.6: Per capita cost of staff, averages over time (period for each supervisor indicated in parenthesis)



Source: computations on authorities' financial statements and data.

A possible limitation of the figures on the per capita cost per staff might be related to the different size of supervised entities and markets for different authorities: the unitary cost of staff might be higher for one supervisor than for another supervisor simply because the size of the overseen financial sector is larger. Therefore, in order to correct the per capita cost of staff for the size of the supervised financial markets, we have calculated an index obtained as the ratio between the per capita cost of staff and the size of financial markets, measured as the cumulative size of banks, stock and bonds markets relative to GDP (as we previously did with the number of workers). In order to have meaningful comparisons, we have focused on authorities whose scope of supervision covers the entire financial markets (e.g. regulators by objectives and single regulator). We find that, even after taking into account the size of the banking and financial markets, the results are in line with the absolute values of per capita cost of staff, with Consob having by far the highest figure among the selected supervisors (Figure 2.7).

Figure 2.7: Ratio between per capita cost of staff and size of financial markets* (2013)



*Size of financial markets calculated as the ratio between bank assets, stock market capitalization and debt securities over GDP. Sources: computations on supervisors' annual reports and other official documents for per capita cost of staff, IMF Global Financial Stability Report October 2014 for financial markets size.

The key question concerns the drivers of such large and persistent variations in the per capita cost of staff across authorities and across countries. Despite having the highest numbers in terms of staff, single regulators appear able to keep the unitary cost of staff lower. While it may be difficult to find a conclusive answer, some hypothesis may be discussed. First, the differences in tax, pension and social contributions rates across countries might explain part of the differences in the per capita cost of staff. Second, the salary component might be higher for some authorities: supervisors might pay higher salaries in the attempt to attract human capital. Or, higher salaries might be associated to cultural factors and a high social status of supervisors. Finally, higher costs might indicate that supervisors' staff is particularly effective at achieving their objectives and higher compensation would reward such effectiveness – here we enter the domain of the benefits of supervision, that we will discuss in Chapter 3.

2.2.4. A focus on Italian micro-authorities

Finally, we have collected data also for the so-called “micro-authorities”. These bodies are entrusted with the tasks of keeping registers and lists of professionals operating in the banking, securities and insurance sectors. In some cases, they are also entrusted with supervisory and

disciplinary powers, which make them similar to “primary” supervisors. Micro-authorities may be established to carry out specific activities and thus reduce the amount of work and tasks assigned to primary supervisors.²⁴ There is a huge debate about the opportunity to introduce micro-authorities. On the one hand, the – already complex – supervisory architectures may become even more complex and less efficient. On the other hand, setting micro-authorities allows to increase the proximity of financial supervisor to supervised entities, which is a crucial factor when the latter are numerous and spread over the country, as the intermediaries involved in financial products distribution. Overall, the choice of adopting the micro-authorities model has to be read within the context of the specific regulatory framework, which can show some significant differences across our sample countries. So, for example, different regulations on the off-site offer of financial products are expected to affect the institutional and organization structure of supervision as well as its cost.

The choice to assign specific regulatory and supervisory powers on specific and limited areas to separate micro-authorities is not too common in Europe. Primary supervisors may decide to assign those tasks to internal divisions rather than to external authorities. However, a number of micro-authorities have been established for example in Italy (and others will be established). Here we will focus on the APF (Albo dei Promotori Finanziari) and the OAM (Organismo degli Agenti e dei Mediatori).

APF is the body in charge of keeping the Single Register of Financial Salesmen and is operational since January 1st, 2009; it was previously housed within Consob. The organization and management of APF is assigned to a number of associations: ABI (Associazione Bancaria Italiana), ANASF (Associazione Nazionale dei Promotori Finanziari), ASSORETI (Associazione Nazionale delle Società di Collocamento di Prodotti Finanziari e Servizi di Investimento). APF is organizationally and financially autonomous and it establishes fees to be paid by financial salesmen and by individuals registering and applying to take the evaluation test.

APF has the following tasks: i) deciding on registrations in and cancellations from the financial salesmen register, changes to existing entries and the issue of related certificates; ii) launching and organizing the evaluation tests for access to the financial salesmen register; iii) timely updating of the register based on measures adopted against financial salesmen by legal

²⁴ For a detailed analysis of Italian micro-authorities’ functions, powers and responsibilities see Lener (2013). The author discusses the possibility to more efficiently reorganize and to unify some of the different bodies, through, for example, the creation of a single body charged with keeping several registers or even, through a single register, appropriately divided into internal functional sections. In any case, the choice of the most rational solution for the current structure of second-level supervision has to be based on the uniformity of rules applicable to the persons enrolled in the registers and the similarities in the activities they carry on.

authorities, Consob and the Authority itself; iv) monitoring continued eligibility for entry in the register.

APF operates in compliance with principles and rules established by Consob regulation 16190 of 29 October 2007. Consob still plays a relevant role: it checks that the conduct of financial salesmen with investors is diligent, correct and transparent; it enforces cautionary measures against them (suspension of activity for a maximum of 60 days or, in specific cases, for as long as a year); it inflicts different sanctions (ranging from warning to disqualification from the register).

APF experience may provide a significant example of how the introduction of micro-authorities does not necessarily cause a decrease in efficiency of financial supervision, making quite questionable such a conclusion. In fact, annual fees paid by Italian financial salesmen have decreased by more than 20% during the six-year period after January 2009, when APF started its activity, even if the number of financial salesmen experienced a significant decrease, dropping from 59,000 to circa 53,000. Furthermore, it should be stressed that APF has massively invested in information and communication technology with very interesting results from a cost saving perspective since IT costs are of utmost importance for financial supervision. Among the other things, APF developed an IT platform for the evaluation tests to access the financial salesmen register and an e-learning platform that is widely used by the candidates, that were almost 4,700 in 2013.

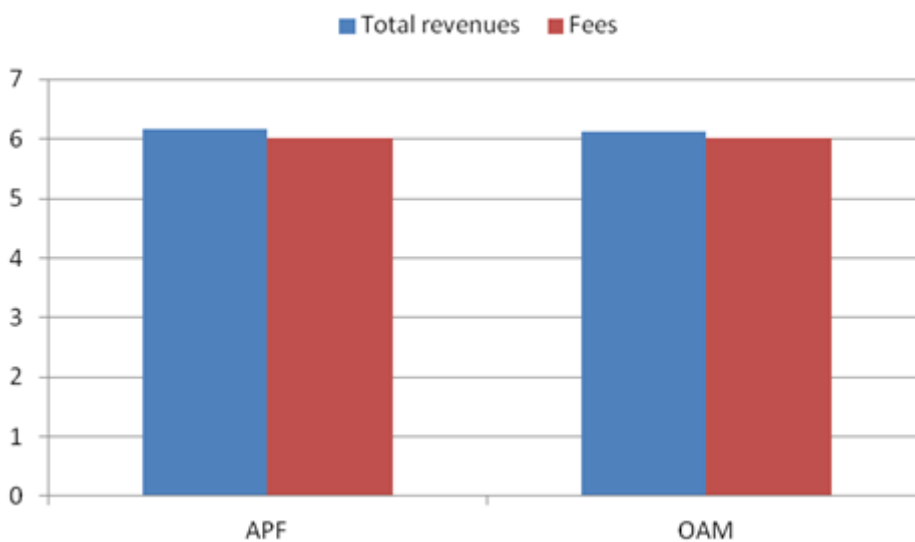
OAM, Organismo degli Agenti e dei Mediatori, is the body that manages the registers of financial agents and credit brokers. It was established in 2010 and took up tasks previously entrusted to the Bank of Italy. OAM is a private body with financial and organizational autonomy, subject to the supervision of the Bank of Italy; it obtains its funding from fees paid for the registration in the lists. OAM is entrusted with supervisory powers: it verifies the respect of professional and personal requirements to be in the registers (consumer protection); it establishes standards for professional courses in preparation to the test for financial agents and credit brokers, and also the content and format of tests. OAM has also been assigned disciplinary powers: it may impose fines on members and can suspend them from the list.

Given the limited scope of activities, the size of APF and OAM is significantly smaller than the size of “primary” supervisors. Total revenues are about € 6 mln, almost entirely coming from fees (Figure 2.8). However, the share of the cost of staff on total expenses (close to 30% for both) is significantly lower relative to primary supervisors. The size of these two micro-authorities is also small in terms of the staff employed, about 30; the per capita cost of staff is also quite low, and much lower than Italian primary supervisors (Figure 2.9).

When comparing the two Italian micro-authorities based on 2013 data, it is important to point out that: i) as of December 2013, the number of financial salesmen was almost 51,300 whereas the number of financial agents and credit brokers stood at 9,700; ii) the number of in-house/outsourced activities is very different, since APF has many more in-house activities relative to OAM.

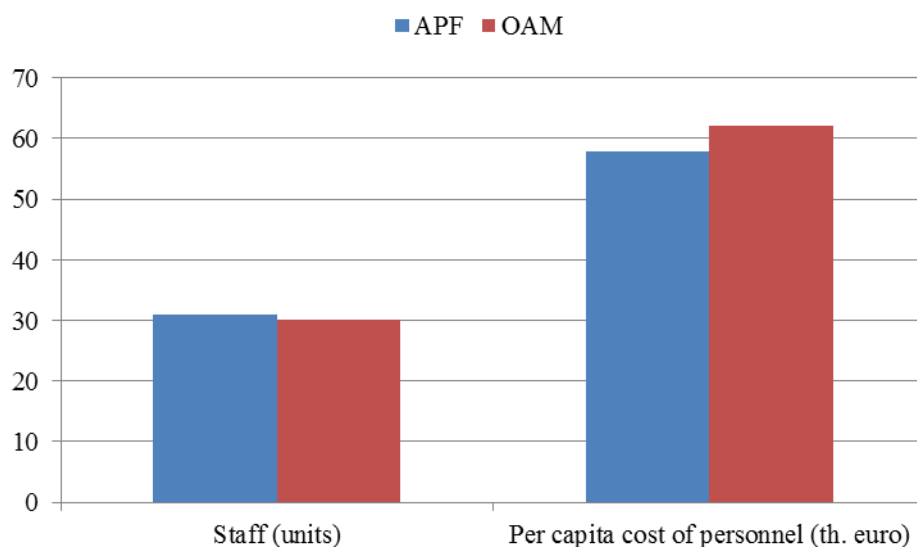
As concerns key income and expense data, total revenues and fees are equivalent, as shown in Figure 2.8, and stand at around €6 million. From a cost perspective, data provided by the two authorities have been adjusted in order to make them comparable. In fact, for example, we have considered that almost 1 out of circa 6 million euros of total expenses has been set aside by APF in order to financially support the implementation of new supervisory powers that are expected to be assigned to it. Personnel costs refer to a staff of 31 and 19.5 workers for APF and OAM, respectively.

Figure 2.8: APF and OAM: key income data, 2013 (mln euro)



Source: APF and OAM data.

Figure 2.9: APF and OAM*, staff and per capita cost of personnel, 2013



*For the calculation of the OAM per capita personnel cost we have used the average number of staff during 2013 (19.5) rather than the year-end data, because a significant increase was recorded in December 2013. Source: APF and OAM data.

The key question is whether spinning off limited specific functions from primary supervisors and assigning them to separate micro-authorities can reduce the costs or increase the benefits of supervision. Economies of scale might be lost, but the per capita cost of staff indicates that micro-authorities might be better able to keep costs lower, at least with regard to the costs of personnel.

2.3 Key results and implications

The empirical analysis of the direct costs of supervision with cross-section and time series data offers a number of indications. First, supervisors tend to become larger over time, in terms of both budget and staff, and size increase might be higher after financial crises as a response to previous regulatory and supervisory failures. In a system with market-based funding of supervisors, the increase in the revenues and costs of authorities might translate into higher costs for the industry: consequently, supervised firms might be required to pay higher fees exactly when they are more fragile in a post-crisis environment – a pro-cyclicality problem might emerge.

Second, the dominance of the market-based system for the financing of supervisors may free supervisors from political interferences, but on the other hand it might expose them to risk of

regulatory capture by the industry. Moreover, such funding mechanism might turn out to be fragile in a crisis, when industry contributions might be lower, and potentially jeopardize the possibility for supervisors to perform effective monitoring and enforcement.

Third, direct costs are highly heterogeneous across authorities but they should be read in conjunction with the size of the supervised industry and market. And higher costs do not necessarily mean lower efficiency: it depends on how those financial resources are spent and on what kind of supervisory output is produced (e.g. higher or lower degree of stability, transparency, etc.). In other words, cost analysis should go hand in hand with benefit analysis.

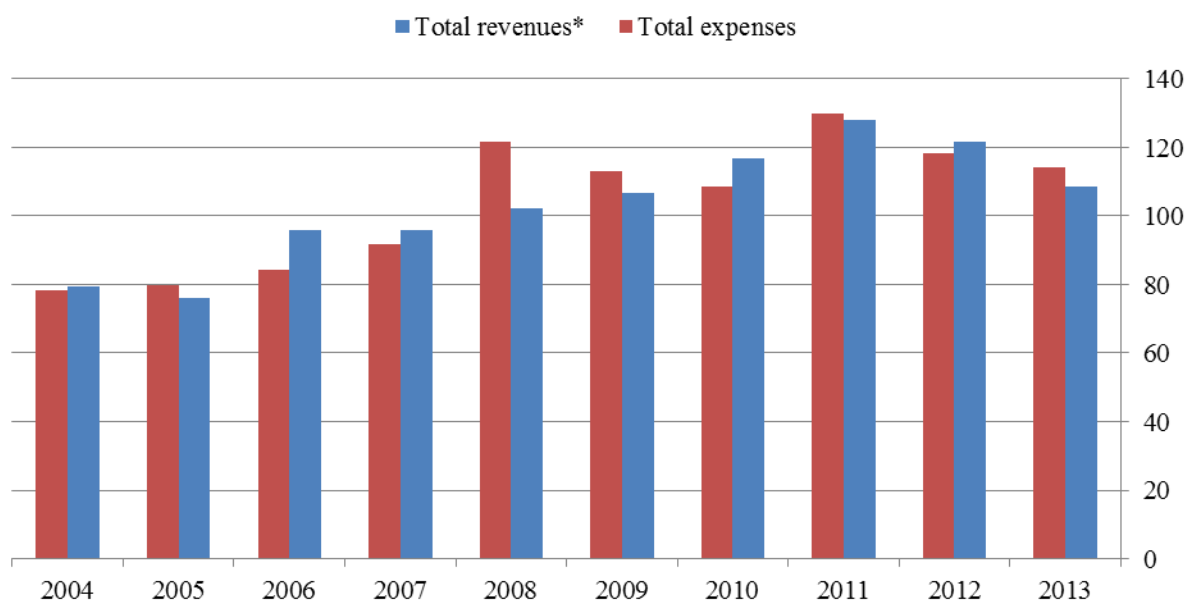
Fourth, to correct for size bias, direct costs should be related to the number of staff employed. Since the cost of personnel is by far the most important expense, a measure of per capita cost of staff can be used to obtain some information on the actual costs of supervisors, regardless of their size. Comparisons between authorities should be extremely cautious here, but a key result seems to be that larger authorities – or single regulators – are not necessarily those with higher per capita cost of staff. The variance across supervisors is quite significant and also persistent over time, signaling some form of structural differences, also across countries. Different taxation rates as well as different pension and social contributions rates could play a role; cultural factors might also be relevant. Certainly, differences across authorities are striking, and one is led to wonder whether supervisors with much higher values of per capita cost of staff are able to deliver much higher supervisory outputs and benefits. To the issue of benefits we now turn in Chapter 3.

Fifth, data on the revenues, costs and staff of supervisors are generally publicly available: however, the format and reporting differ across authorities and countries. Consistency in the income and expense statement format across regulators in European countries – and within European countries – is highly desirable and would facilitate analysis and comparisons. Unfortunately, data for some supervisors are simply not available, or just partially available: this is the case of central banks (Bank of Italy and Bank of Spain in our sample), which do not report, or only report limited and not systematic income and expense information on their supervisory activities. A requirement for central banks to publish a segmental financial reporting for supervision would be helpful. A similar requirement should apply to supervisory departments housed within ministries (in our sample, the insurance supervisory department at the Spanish Ministry of Economy). Moreover, it would be extremely important to introduce a disclosure requirement for all financial markets authorities to publish, according to consistent cross-authorities and cross-countries formats and definitions, segmented data on staff and costs related to regulatory activities on one side and supervisory functions on the other side. Such segmented information would significantly facilitate a

better understanding of the functioning of authorities and would strengthen comparisons between them.

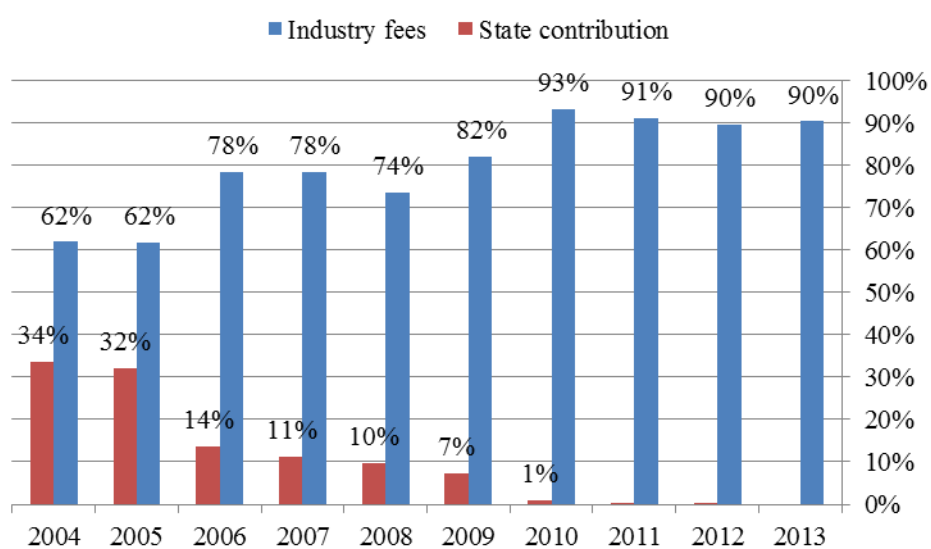
Chapter 2 – Appendix

Figure 2.10: Consob, revenues and expenses (mln euro)



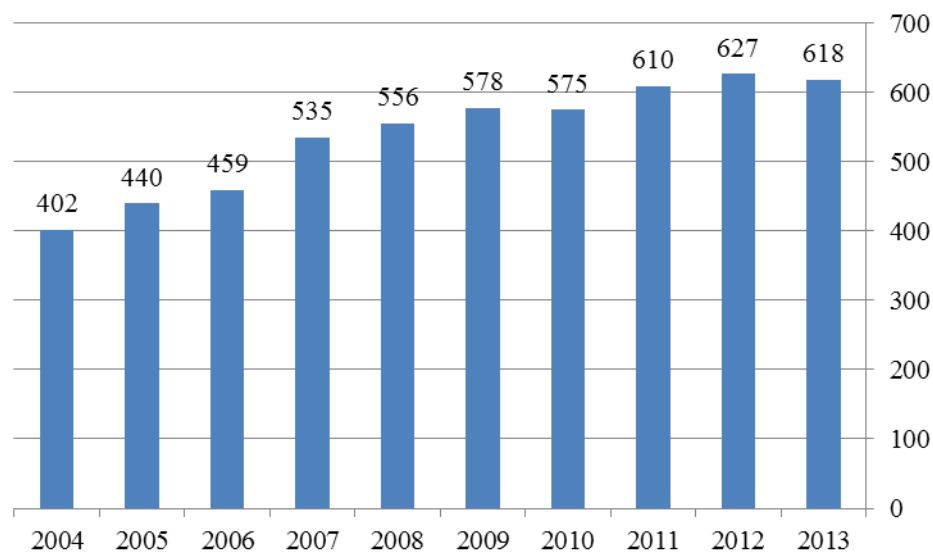
*Surplus from previous year not included. Source: Consob.

Figure 2.11: Consob, main sources of funding (% of total revenues)



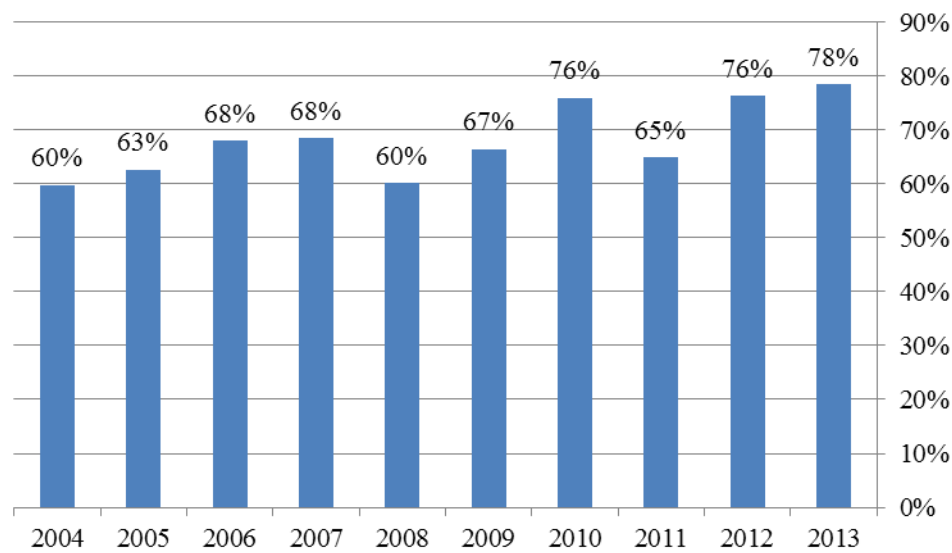
Source: computations on Consob data.

Figure 2.12: Consob, staff (units)



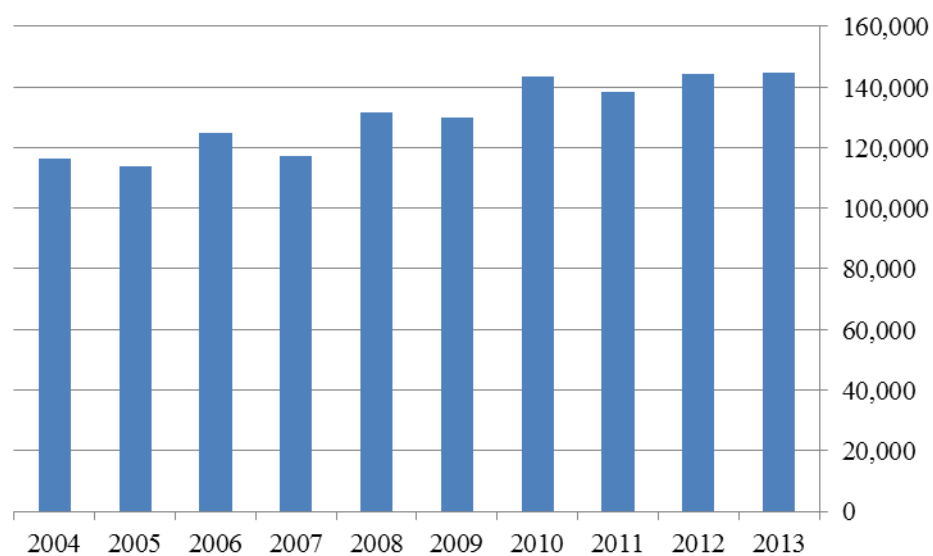
Source: Consob.

Figure 2.13: Consob, cost of staff on total expenses



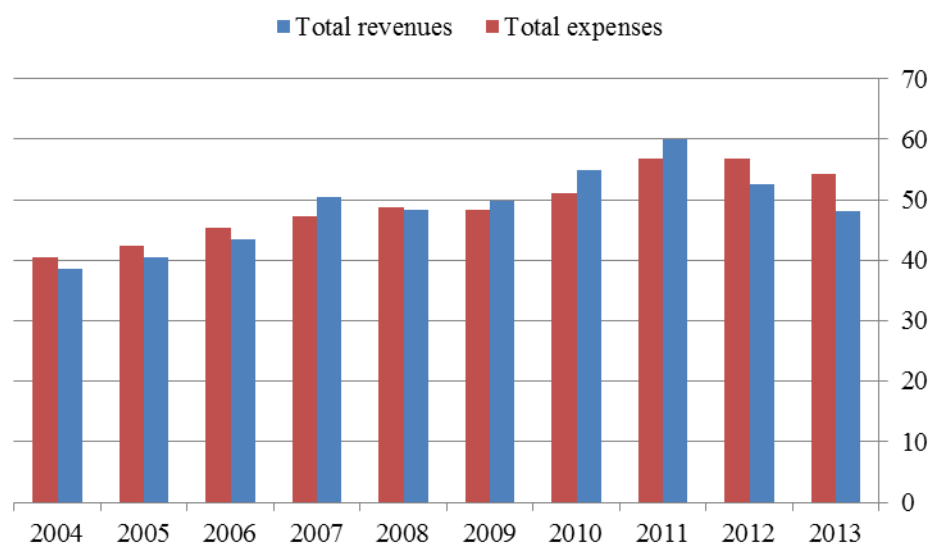
Source: computations on Consob data.

Figure 2.14: Consob, per capita cost of staff (euro)



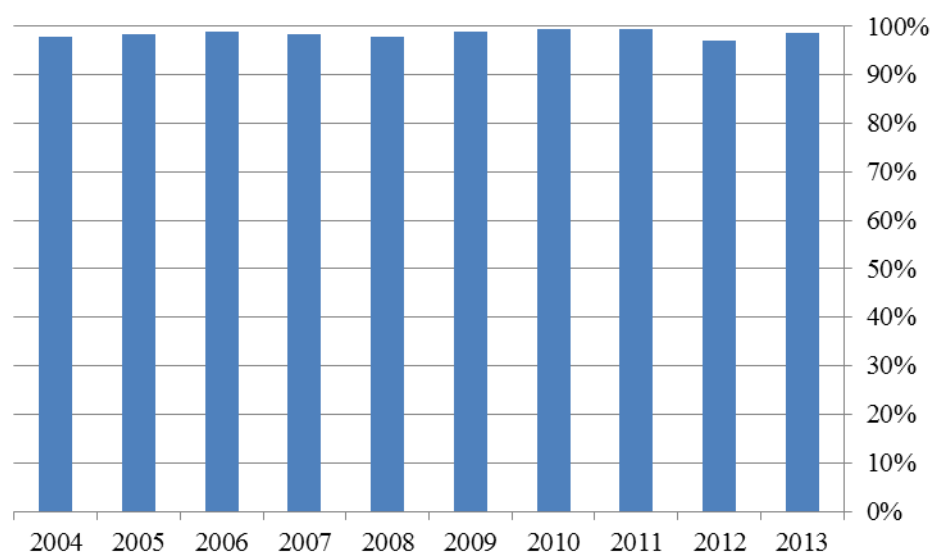
Source: computations on Consob data.

Figure 2.15: Isvap/Ivass, revenues and expenses (mln euro)



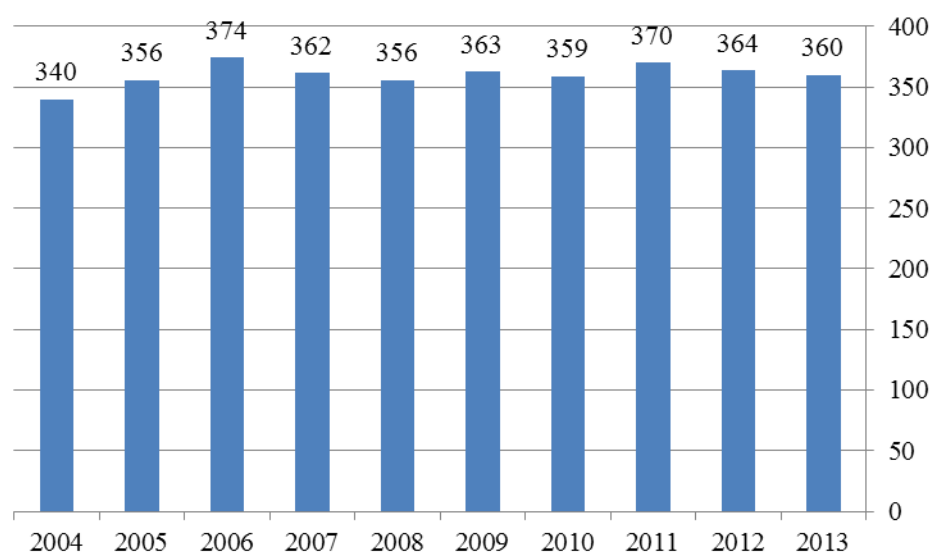
Source: Isvap, Ivass.

Figure 2.16: Isvap/Ivass, industry fees, % of total revenues



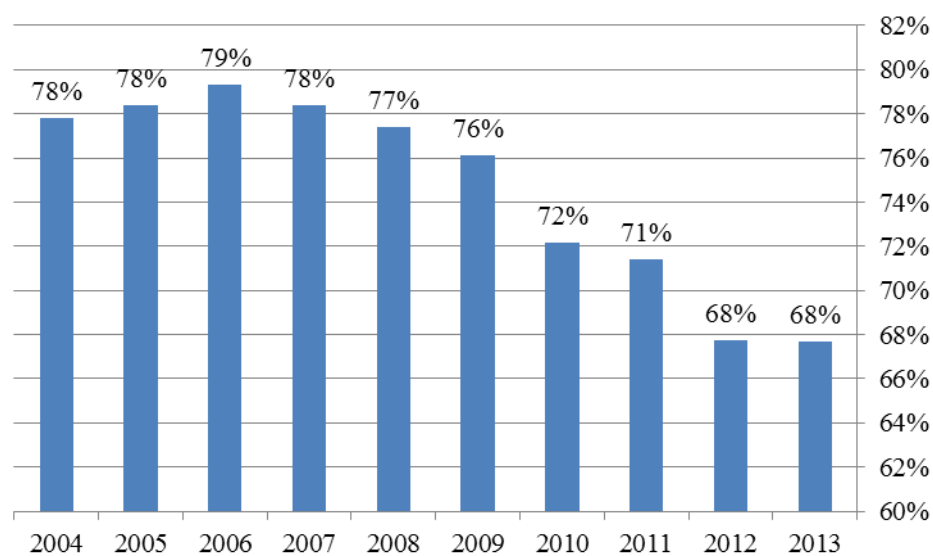
Source: computations on Isvap/Ivass data.

Figure 2.17 : Isvap/Ivass, staff (units)



Source: Ivass/Isvap.

Figure 2.18: Isvap/Ivass, cost of staff on total expenses



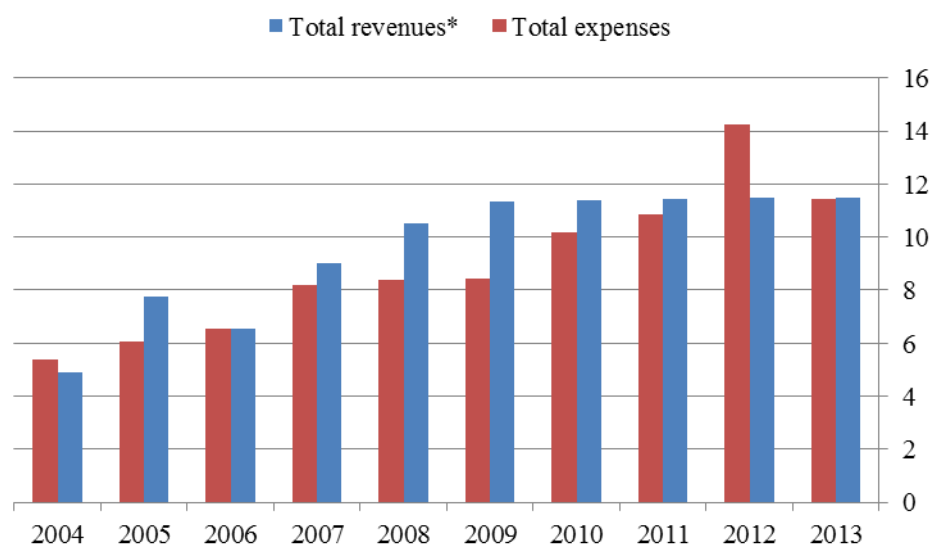
Source: computations on Isvap/Ivass data.

Figure 2.19 : Isvap/Ivass, per capita cost of staff (euro)



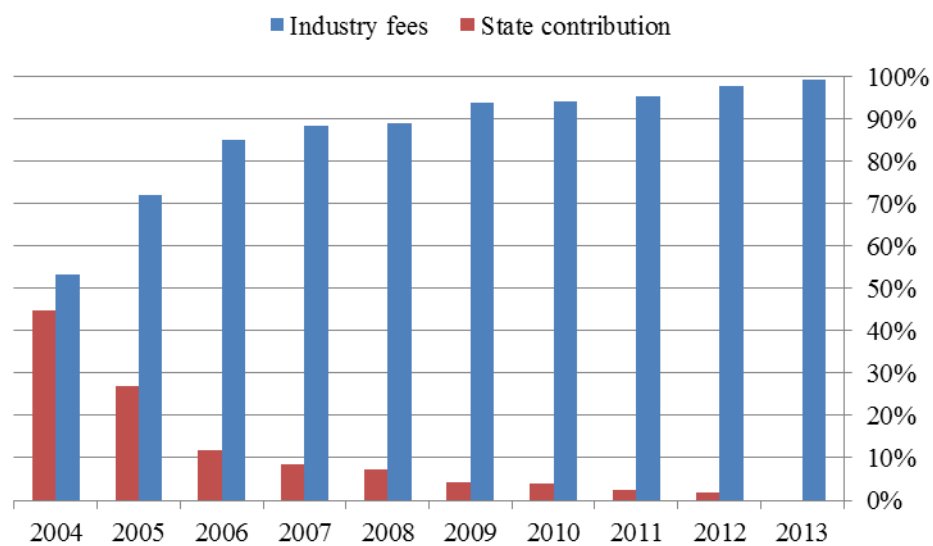
Source: computations on Isvap/Ivass data.

Figure 2.20: Covip, revenues and expenses (mln euro)



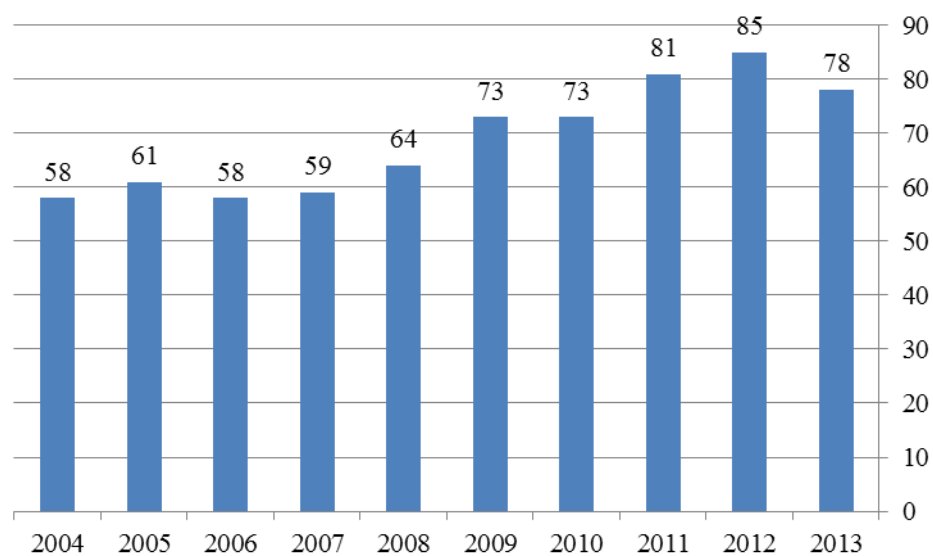
*Surplus from previous year not included. Source: Covip.

Figure 2.21: Covip, sources of funding (% of total revenues)



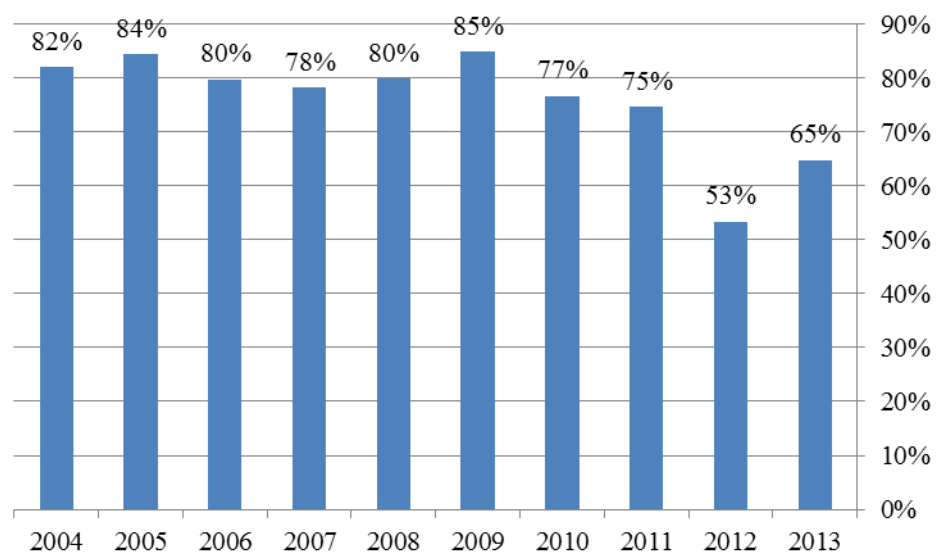
Source: computations on Covip data.

Figure 2.22: Covip, staff (units)



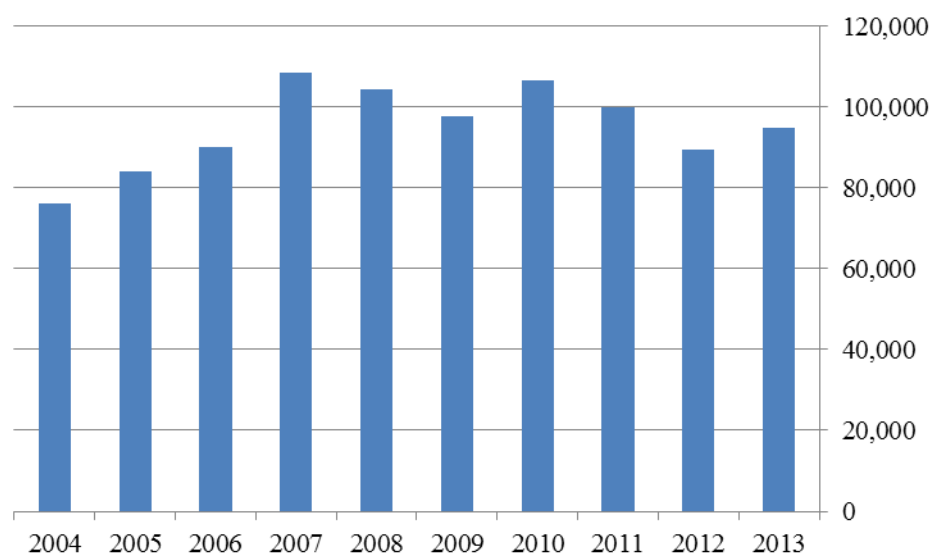
Source: Covip.

Figure 2.23: Covip, cost of staff on total expenses



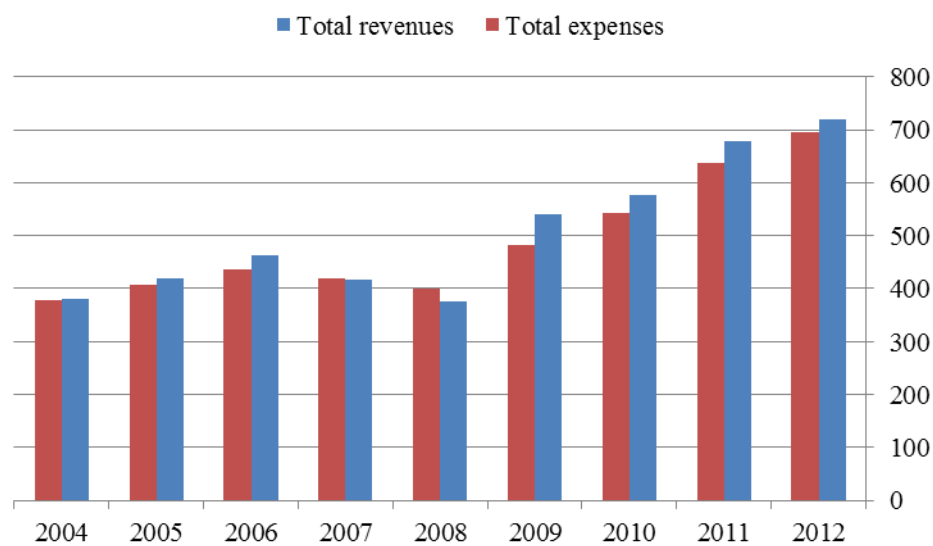
Source: computations on Covip data.

Figure 2.24: Covip, per capita cost of staff (euro)



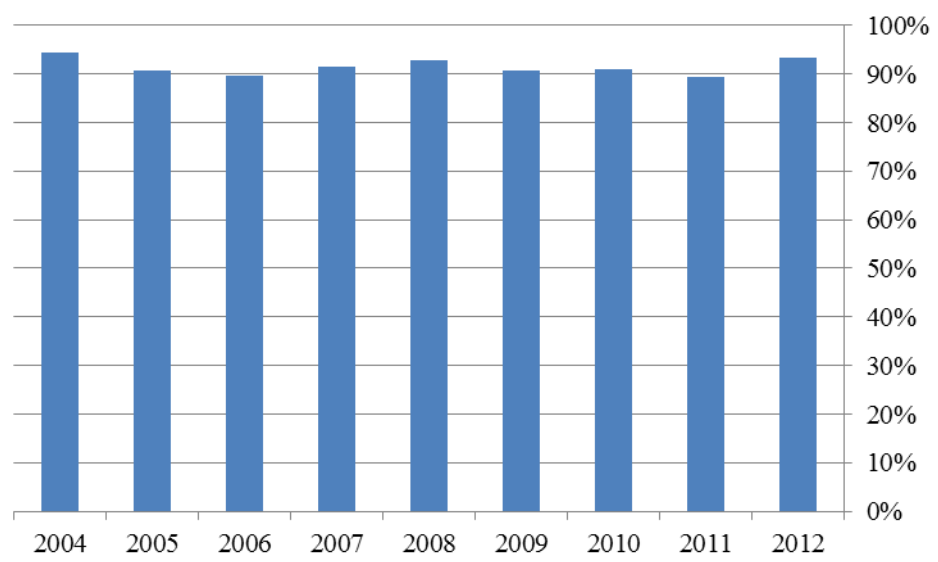
Source: computations on Covip data.

Figure 2.25: FSA, revenues and expenses (mln euro)



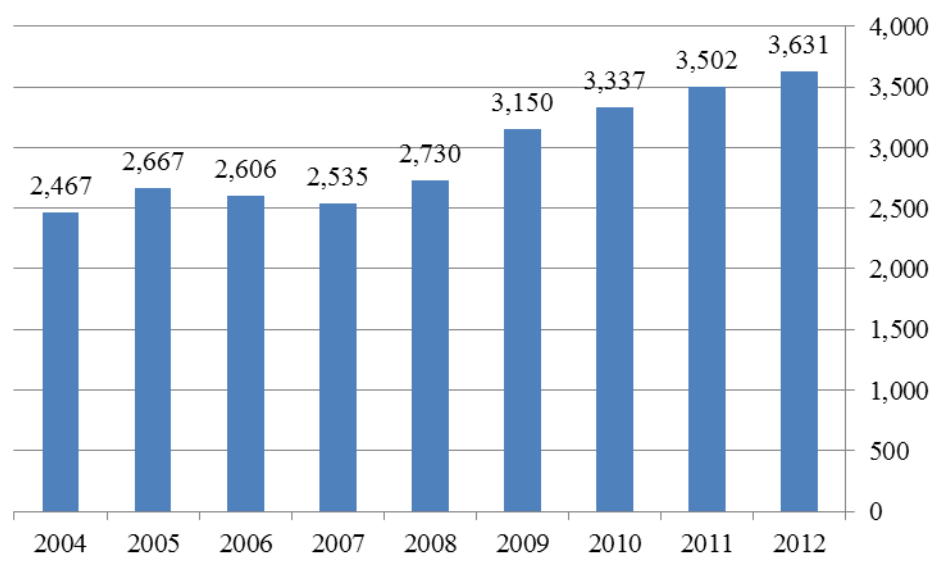
Source: computations on FSA data.

Figure 2.26: FSA, industry fees, % of total revenues



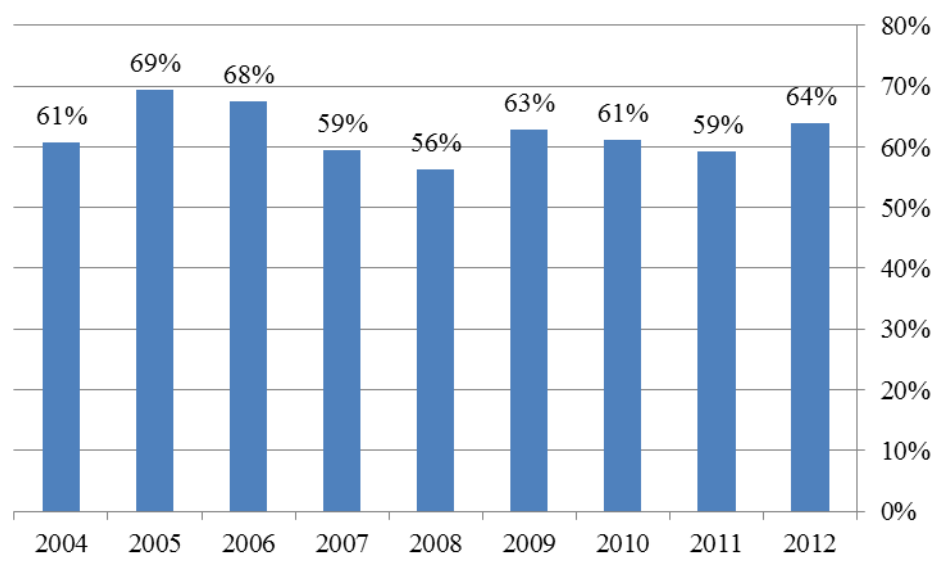
Source: computations on FSA data.

Figure 2.27: FSA, staff (units)



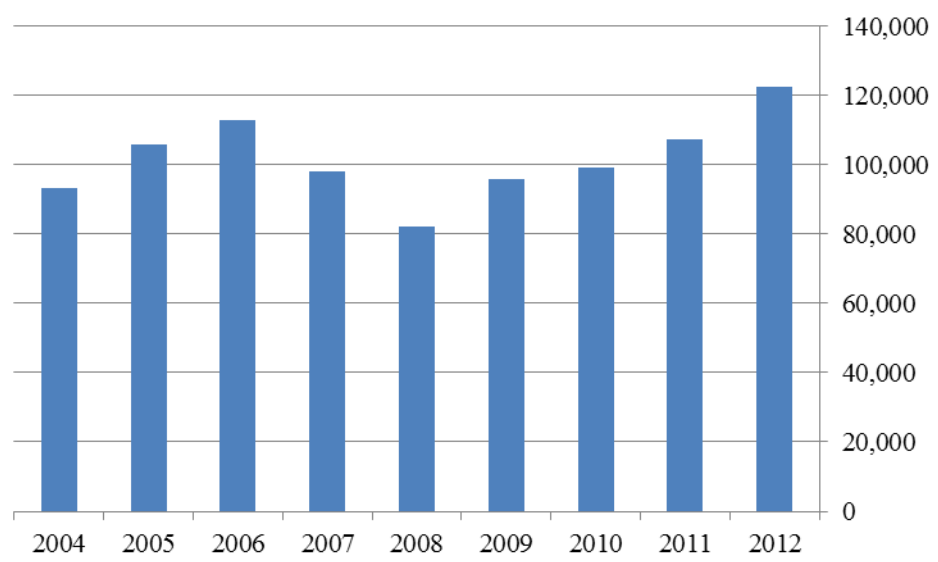
Source: FSA data.

Figure 2.28: FSA, cost of staff on total expenses



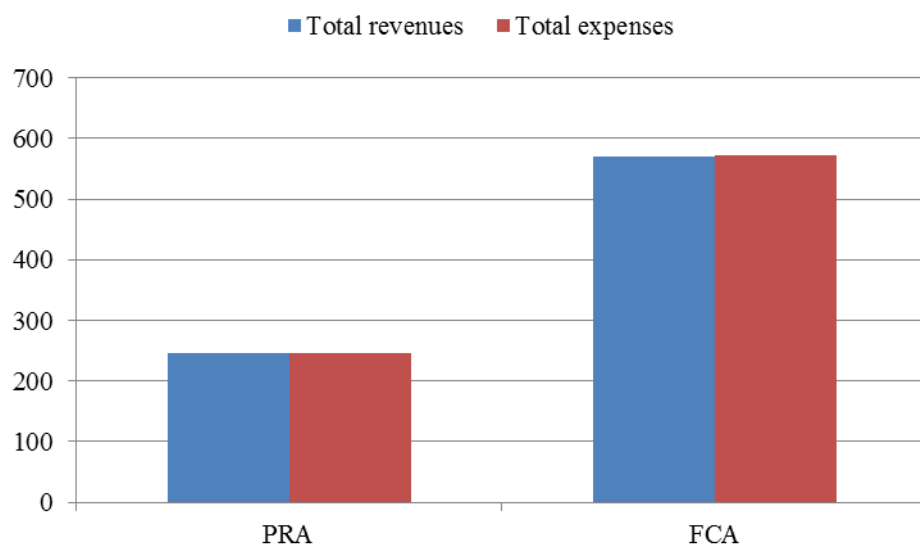
Source: computations on FSA data.

Figure 2.29: FSA, per capita cost of staff (euro)



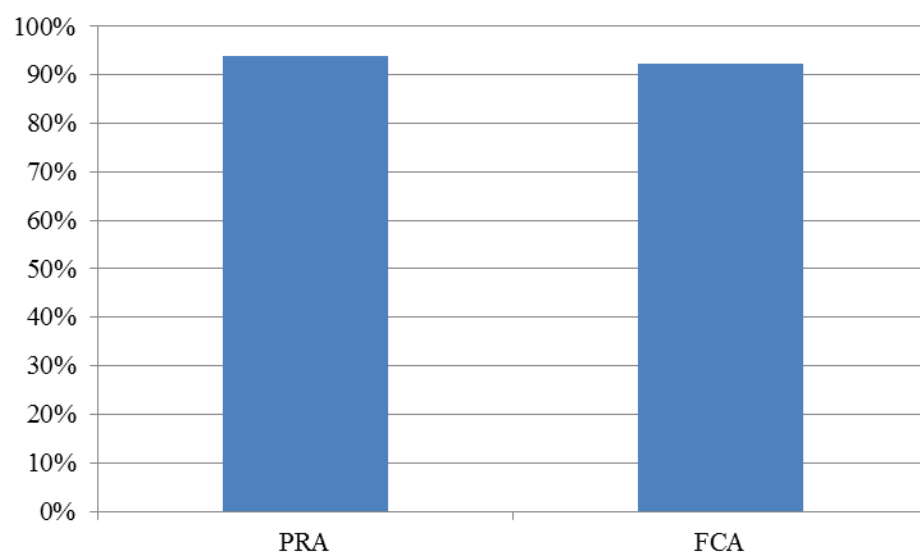
Source: computations on FSA data.

Figure 2.30: PRA and FCA, revenues and expenses (mln euro), 2013-2014



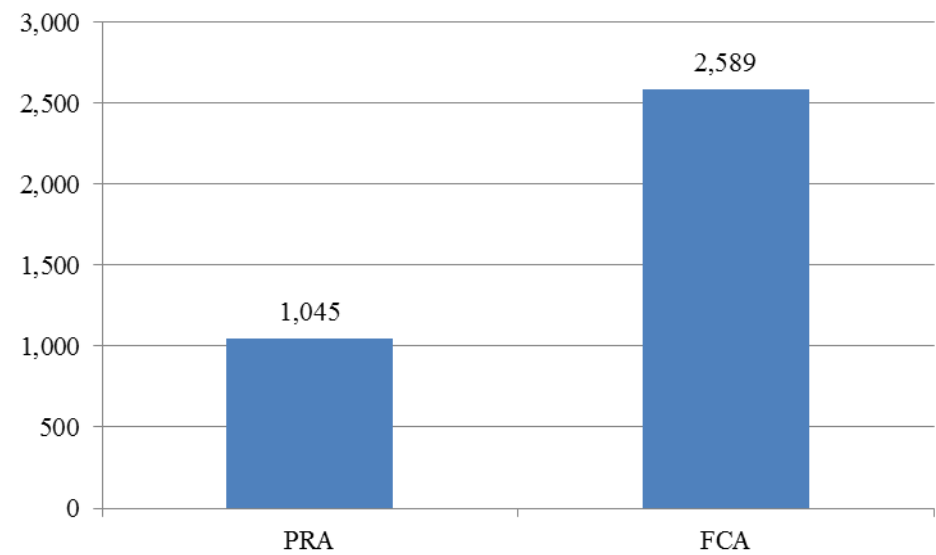
Source: PRA and FCA.

Figure 2.31: PRA and FCA, industry fees, % of total revenues, 2013-2014



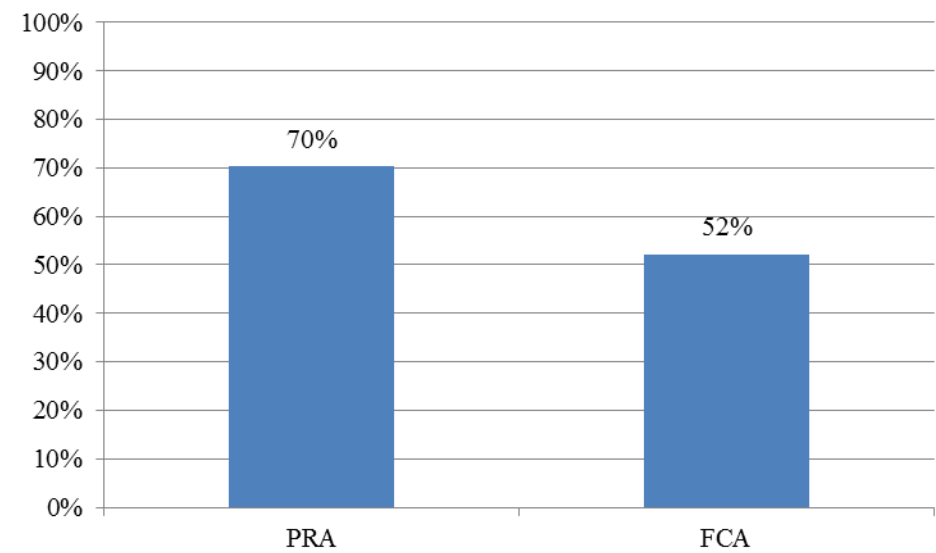
Source: computations on PRA and FCA data.

Figure 2.32: PRA and FCA, staff (units), 2014*



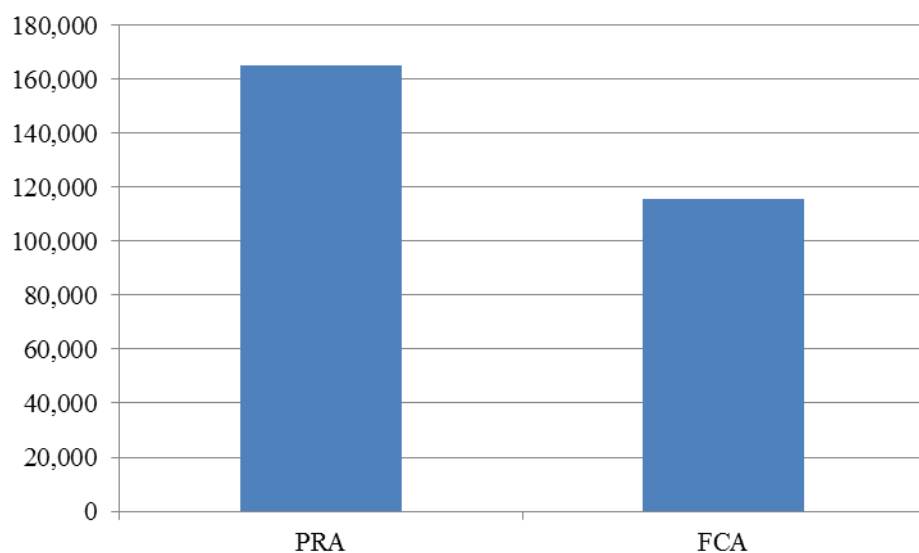
*Data as 28 February 2014 for PRA and as of 31 March 2014 for FCA. Source: PRA and FCA.

Figure 2.33: PRA and FCA, cost of staff on total expenses, 2013-2014



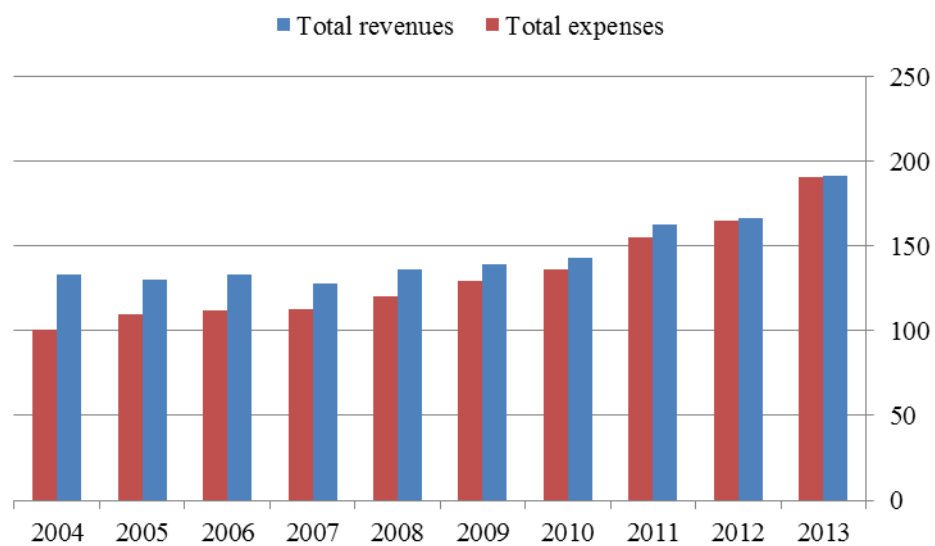
Source: computations on PRA and FCA data.

Figure 2.34: PRA and FCA, per capita cost of staff (euro), 2013-2014



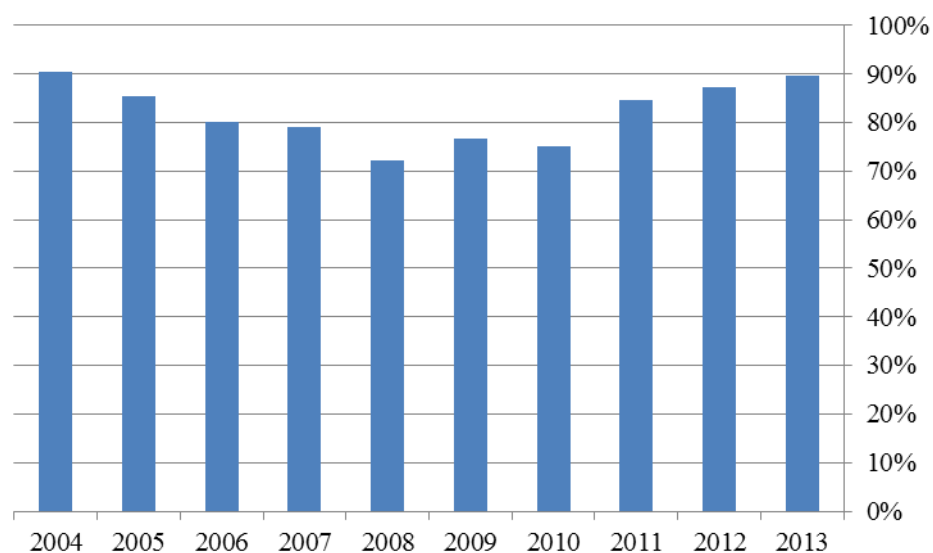
Source: computations on PRA and FCA data.

Figure 2.35: BaFin, revenues and expenses (mln euro)



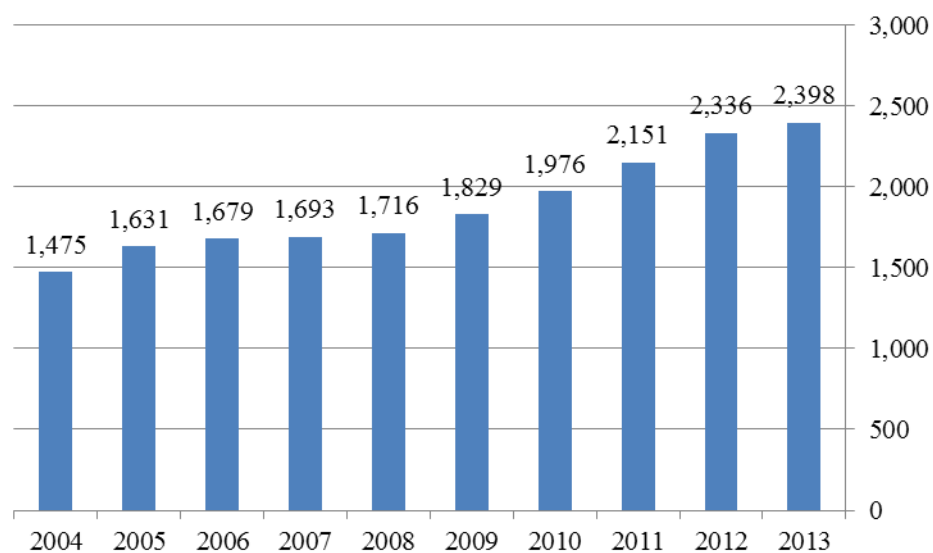
Source: BaFin.

Figure 2.36: BaFin, industry fees*, % of total revenues



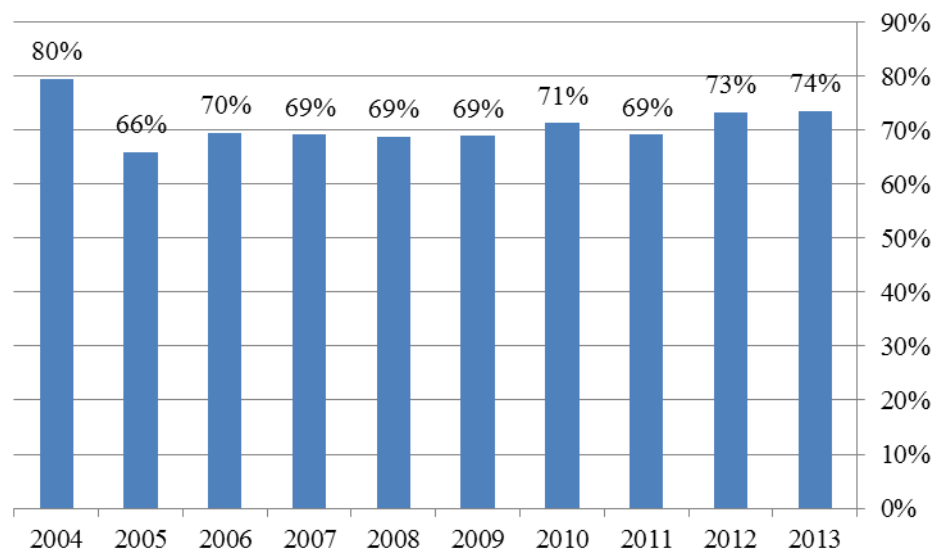
*Only costs allocated to banks, insurance and securities trading are counted; administrative income (including some types of fees) is not included. Source: BaFin.

Figure 2.37: BaFin, staff (units)



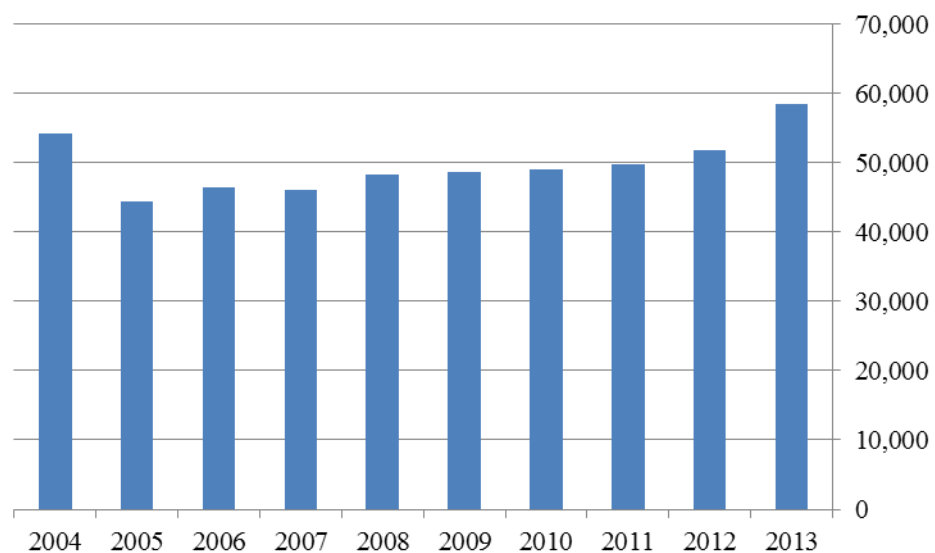
Source: BaFin.

Figure 2.38: BaFin, cost of staff* on total expenses



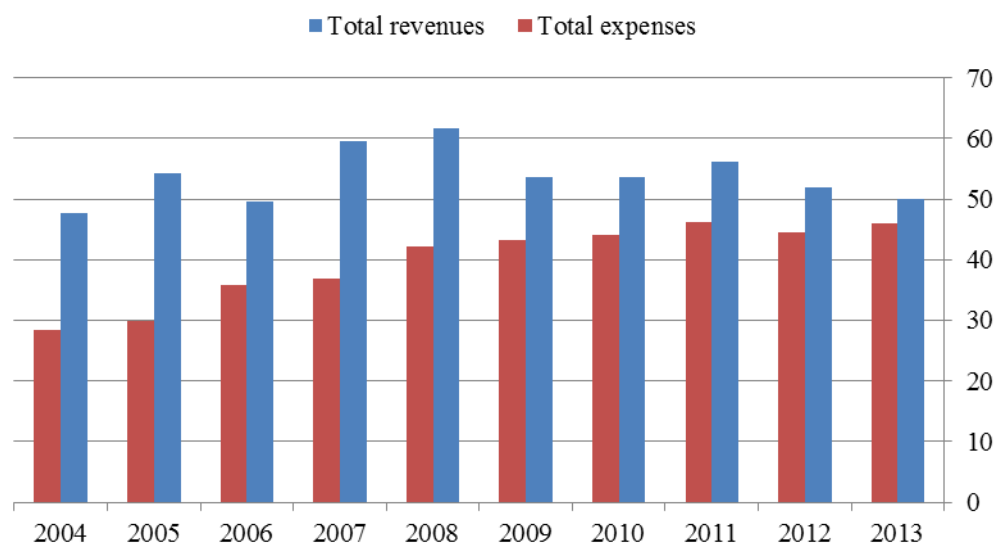
*Cost of staff for 2004 from the 2004 budget (actual data not available). Source: computations on BaFin data.

Figure 2.39: BaFin, per capita cost of staff* (euro)



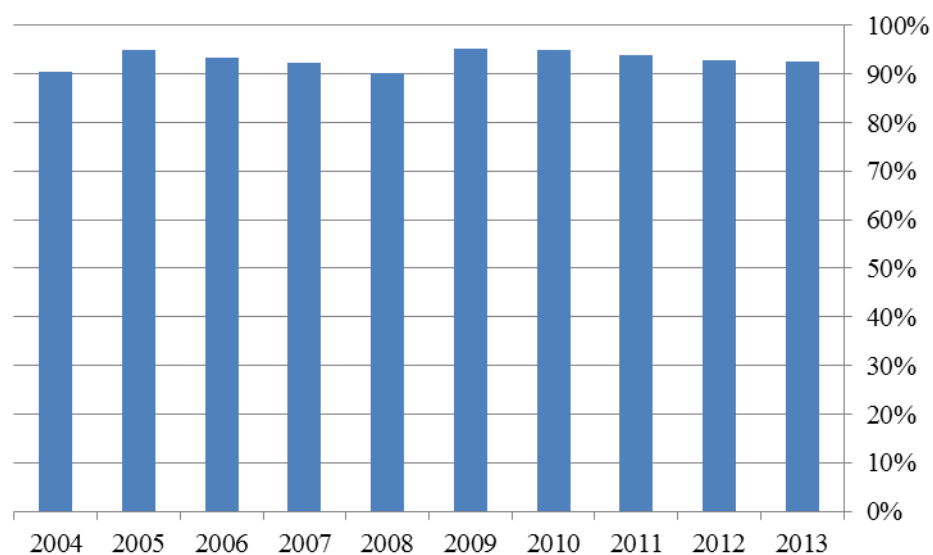
*Cost of staff for 2004 from the 2004 budget (actual data not available). Source: computations on BaFin data.

Figure 2.40: CNMV, revenues and expenses (mln euro)



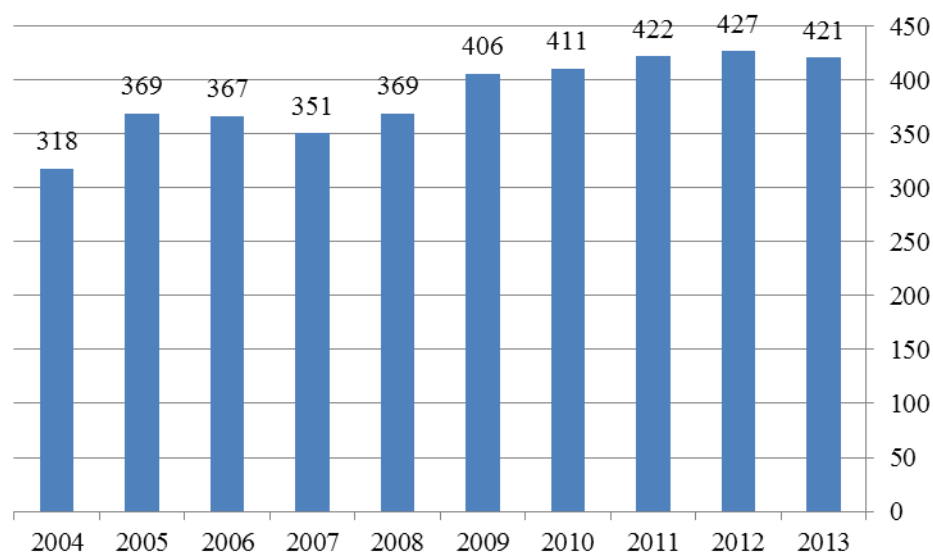
Source: CNMV.

Figure 2.41: CNMV, industry fees, % of total revenues



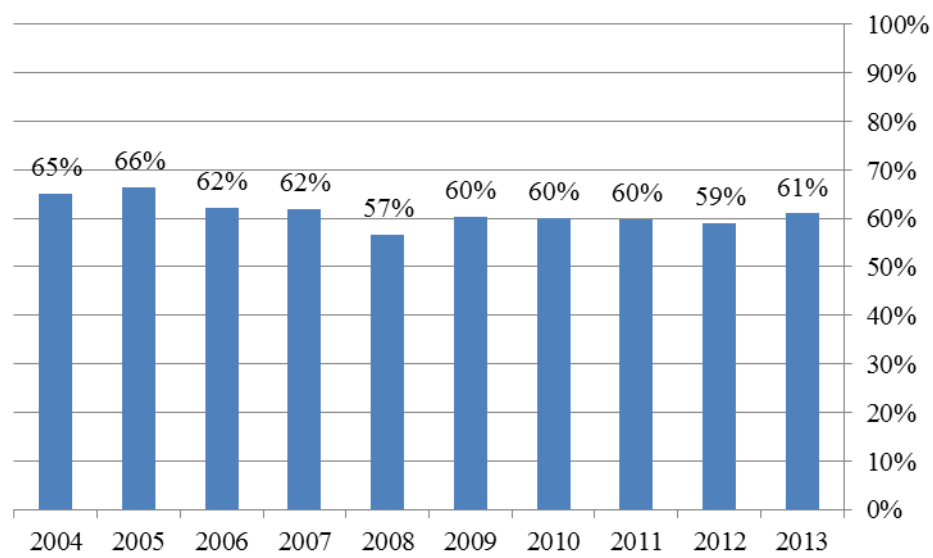
Source: computations on CNMV data.

Figure 2.42: CNMV, staff (units)



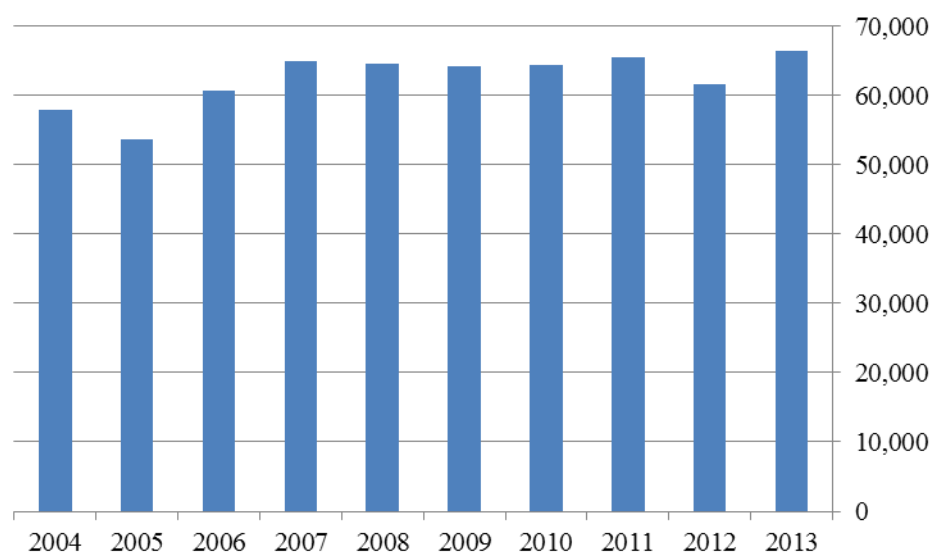
Source: CNMV.

Figure 2.43: CNMV, cost of staff on total expenses



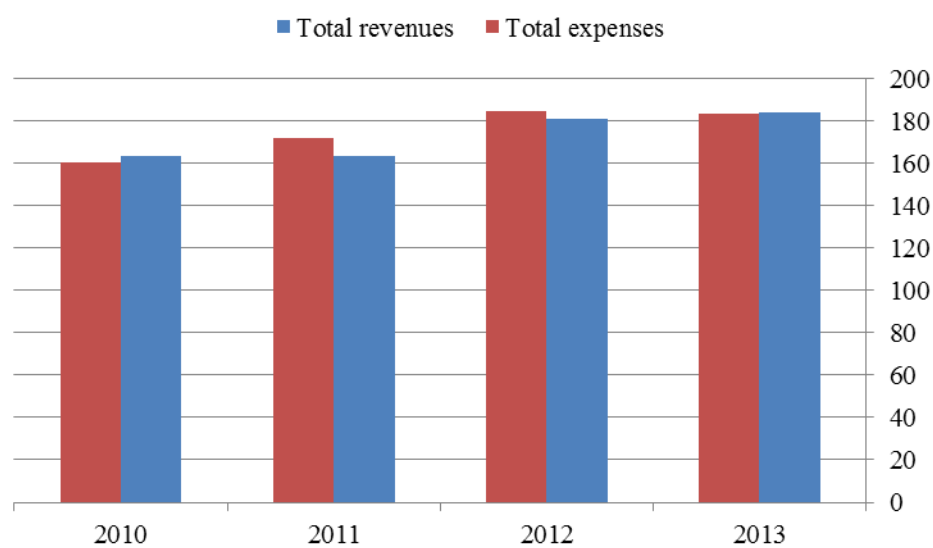
Source: computations on CNMV data.

Figure 2.44: CNMV, per capita cost of staff (euro)



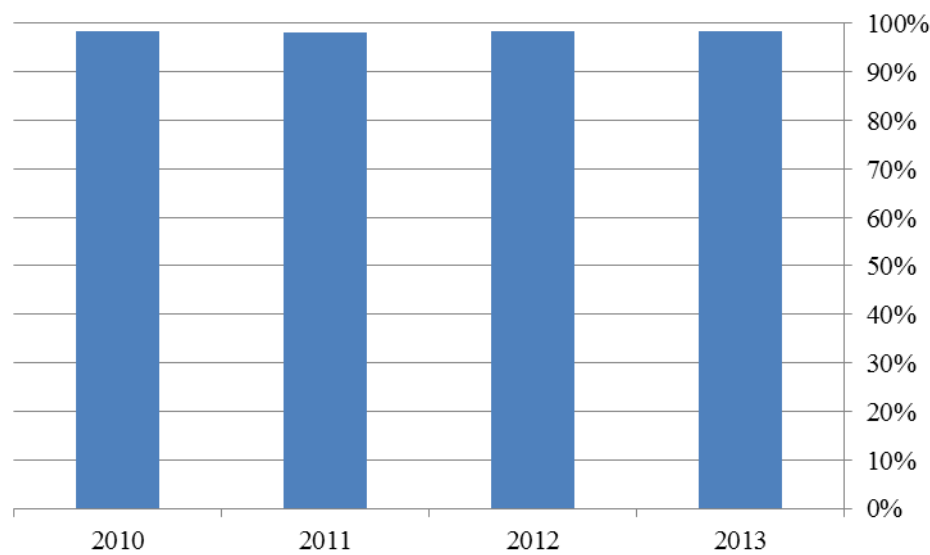
Source: computations on CNMV data.

Figure 2.45: ACP/ACPR, revenues and expenses (mln euro)



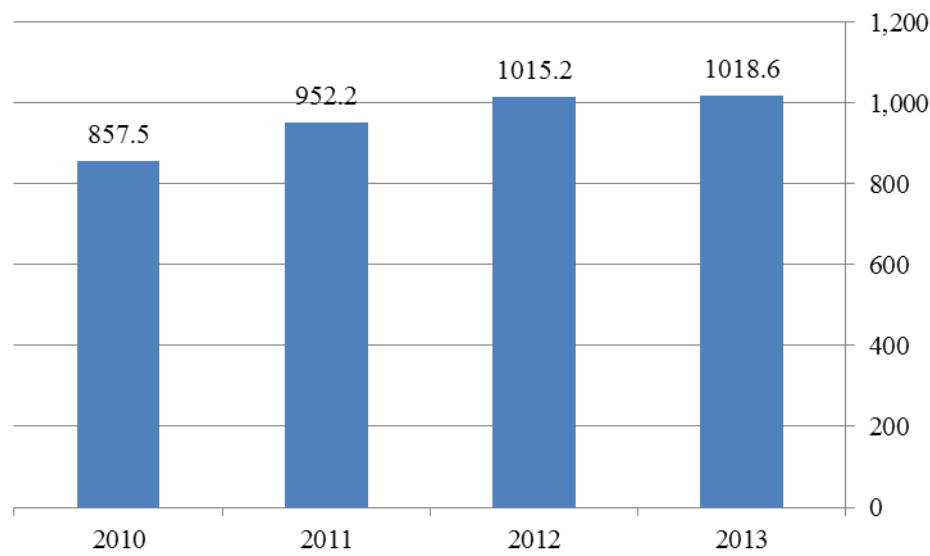
Source: ACP/ACPR.

Figure 2.46: ACP/ACPR, industry fees, % of total revenues



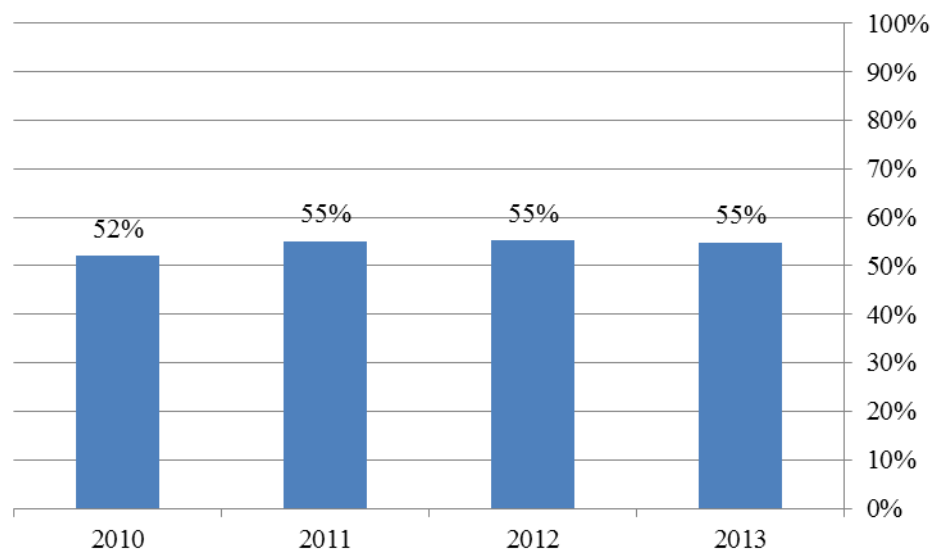
Source: computations on ACP/ACPR data.

Figure 2.47: ACP/ACPR, staff (units*)



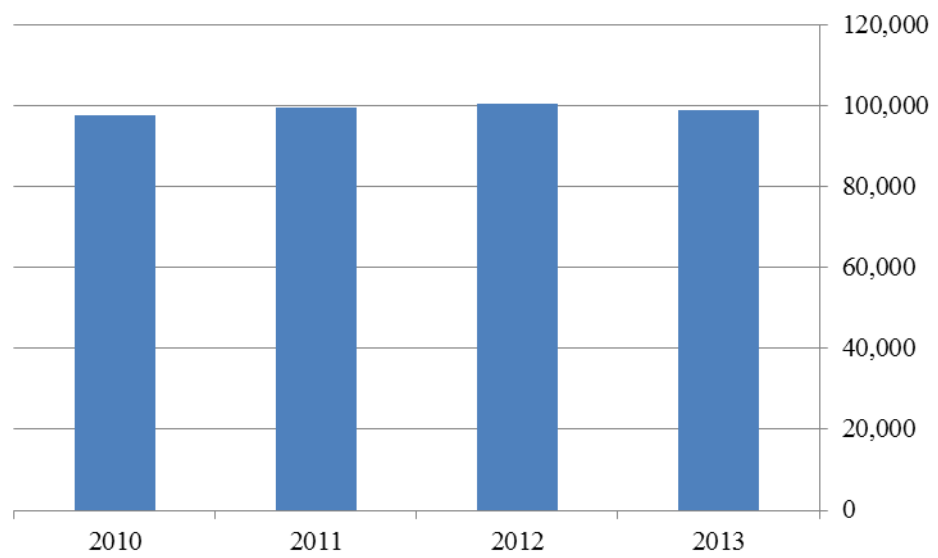
*Yearly averages. Source: ACP/ACPR.

Figure 2.48: ACP/ACPR, cost of staff on total expenses



Source: computations on ACP/ACPR data.

Figure 2.49: ACP/ACPR, per capita cost of staff (euro)



Source: computations on ACP/ACPR data.

Chapter 3

The effectiveness of financial supervision

3.1. Measuring the effectiveness of financial supervisors: beyond the cost-side analysis

The quality of financial sector supervision has proven to be a key issue during the financial crisis. Differences in the impact of the crisis on countries with financial systems operating under the same set of global rules can be explained also by differences in the effectiveness of supervisory activity. The response to the crisis has stressed the need for more and better regulation, but policy makers have devoted less attention to analyze whether and how supervision could be strengthened as well. Viñals and Fiechter (2010) pointed out that the assessments of financial sector supervisory and regulatory standards conducted by the IMF²⁵ show that many countries have to fill a relevant gap as concerns supervision across the different financial sectors.²⁶

In this chapter we aim at providing an analysis of the effectiveness of financial supervision. In order to fully evaluate the overall adequacy and sustainability of a financial supervision system, we have to go beyond the cost analysis developed in chapter 2: it becomes crucial to detect whether the benefits of financial supervision offset its costs. Setting a performance management system analyzing the effectiveness of financial supervisors' activity is important from both the public stakeholders' and the supervisors' point of view (Baldwin and Black, 2007, Hilbers et al., 2013).

Since the benefits for the public stakeholders can be easily imagined, let's focus on the potential benefits for the supervisors themselves, first by recalling that the effects of financial supervision can be measured at three different levels: strategic, tactical and operational. From a strategic point of view, performance measurement enables a supervisor to show the benefits stemming from its activity to stakeholders. From this perspective, performance measurement might result in an overview of aggregated measures, such as the level of confidence in financial markets, the transparency of financial markets and the degree of financial stability. Performance measurement at the tactical and operational level, on the other hand, is more focused on improving the quality and efficiency of the supervisory processes, because it allows a financial supervisor to

²⁵ This is the so called Financial Sector Assessment Program (FSAP), which was established in 1999 and is a comprehensive and in-depth analysis of a country's financial sector. In particular, FSAP assessments are the joint responsibility of the IMF and World Bank in developing and emerging market countries and of the Fund alone in advanced economies. They are made up of two major sections: a financial stability assessment, prepared by the Fund, and, for developing and emerging market countries, a financial development assessment which is made by the World Bank.

²⁶ See IMF (2004a, 2004b) for an early evaluation of cross-sector issues highlighted by the Financial Sector Assessment Program.

analyze its ability to address specific market issues. Assessing the effects of supervisors' interventions is necessary in order to determine whether a certain problem has been sufficiently mitigated and to decide the allocation of supervisory resources to another supervisory issue. Finally, from an operational point of view, performance management may also enhance knowledge about which interventions are effective under which circumstances²⁷ and can be used to create organizational performance incentives.

3.2. What is financial supervisory effectiveness and why is it so difficult to measure?

Financial supervision effectiveness can be defined as the degree to which supervisory practice contributes to the realization of supervisory objectives. These objectives can be grouped in two categories. The former is made up of objectives with a social relevance, such as to enhance the financial system stability, transparency and fair competition; the latter are the so called compliance objectives, according to which the supervisor has to make sure that supervised institutions actually comply with the existing rules (Hilbers et al., 2013).

Measuring the effectiveness in financial supervisory practice is not straightforward because of the difficulty of proving causality in analyzing financial institutions' behavior. For example, a change in a bank risk profile might have nothing to do with any supervisory intervention, but it might be caused by some exogenous factors. One way of finding a plausible answer to the causality question is to consider the counterfactual, i.e. to consider what would have happened if there had been no supervision, or if the supervisor had *not* intervened. A traditional experimental research design would be helpful, but setting up an experimental research design is difficult in the context we study, first because it is not always possible to effectively separate the control group from the experimental group.²⁸ Furthermore, the selection of the intermediaries to include in the control group can be driven by the will to ignore certain undesirable behavior demonstrated by institutions within the control group.

The second challenge in measuring the effects of supervision refers to the potentially conflicting short and long term effects of supervisors' interventions. A financial supervisor may instruct a financial institution to sell off previously acquired complex investments because it lacks

²⁷ For example, performance measurement may show that increasing investor awareness causes an increase in investment fund transparency about their costs. Consequently, supervisor might apply that similar strategy in other fields to boost transparency there as well.

²⁸ For instance, let's assume that the supervisor wants to improve the quality level of the financial services. Companies in the control group are likely to become aware of the supervisor's intervention through the media and isolating them consequently becomes a very difficult task (Hilbers et al., 2013).

the appropriate level of risk management. In the short term, such a supervisory intervention may result in additional (transaction) costs and consequently may have an adverse impact on the institution's financial position. In the longer term, however, the financial position may strengthen as the institution is no longer exposed to (investment) risks that it cannot adequately control (Hilbers et al., 2013).

A third issue in trying to evaluate the effectiveness of financial supervisors' interventions is referred to how and to what extent their effects can be shown to public stakeholders. In many cases, the duty of confidentiality makes it difficult for supervisors to make information about their interventions public. Let's consider an intervention preventing a certain financial institution's insolvency. The supervisor will strengthen the solidity of the financial institution, as well as increase public confidence in the specific institution and probably also in the financial sector as a whole. But what if the public loses confidence in the sector to which the institution belongs, or if the public believes that one company's difficulties can affect also other institutions within the same sector?

3.3. Measuring the effectiveness of financial supervision: effort vs. effect indicators and hard vs. soft indicators

Supervision objectives are difficult to be translated into what the performance measurement literature defines SMART goals (Doran, 1982; Mayne, 1999; Hilbers et al., 2013), where the acronym stands for Specific, Measurable, Attainable, Relevant and Time-bound. From this perspective, reducing the level of abstraction at which supervision effects are measured would help. In particular, according to Sparrow (2008), supervisors should define their objectives in terms of risks or problems at a micro level and not in terms of financial stability or solid financial institutions.²⁹ This would not allow to demonstrate a casual relationship between supervisory interventions and the social objectives, but micro results will show whether supervisors' actions are result-oriented, analytical and effective.

In measuring the performance of a financial supervisor we have to distinguish between effort indicators and effect indicators. The former, such as input and throughput, do not show supervisory effectiveness but may be used to measure supervisory efficiency. As to effect

²⁹ For example, if a supervisor considers a specific product too risky for private investors and wants to prevent them from investing in it, a useful indicator for measuring effects at micro level would be the amount of investments in that specific product. It would be easier to demonstrate that additional on-site visits strengthens the governance structure of a specific institution than to show that those visits had a positive effect on the overall system financial stability.

indicators, they can be divided into three main categories: output, intermediate outcome and final outcome. The term “output” usually refers to the direct consequences of supervisory activity. Largely used output indicators are the number of fines or the number of revoked licenses; but such indicators do not show whether financial institutions are actually making their behavior more consistent with rules in order to produce a socially desirable outcome. Therefore, in order to measure the impact of their actions in terms of public objectives, supervisors need to use outcome indicators as well. Unfortunately, outcome is not easy to measure, first because it might be affected by external events, and second because supervision may cause undesirable side effects. For example, regulation prohibiting financial intermediaries to receive fees from financial products providers aims at reducing incentives for financial intermediaries not to act in the best interest of their clients. This would force intermediaries to develop new earning models, that, in general, are supposed to be in the interest of their clients, but that may not automatically be true.

The objective of measuring the performance can be more effectively pursued if, instead of a single parameter, a set of performance indicators is used. The first reason is that a portfolio of indicators incorporates different perspectives and the final evaluation is less sensitive to outliers than the analysis of a single parameter.³⁰ The selection of the indicators that have to be included in the portfolio is strongly related to the objective of the performance measurement. So, for example, if the objective is to evaluate the effectiveness of the supervisor, outcome indicators are generally most suited.

Overall, in order to evaluate both the effectiveness and efficiency of a supervisor’s activity, we could monitor the soundness of the financial institutions under supervision (outcome), but we could also consider the number of on-site inspections performed or the number of fines (output) and the level of supervisory resources involved (input). According to Hilbers et al. (2013), a reasonable set of indicators could, for instance, include the following ones: i) number of policy initiatives (revisions) successfully adopted in (inter)national fora (outcome); ii) number of revisions in national regulation following a supervisor’s initiative (outcome); iii) number of international fora actively participated in (output); iv) number of seminars organized to influence key stakeholders in the policy environment (output); v) number of resources deployed on a specific supervisory theme (input); vi) number of resources participating in a (inter)national forum (input).

³⁰ Let’s suppose that a supervisor uses the number of the clients’ complaints to determine whether a certain company is improving its level of fair treatment of customers. When the number of complaints is used to increase customer awareness of the quality of advice given by the financial institutions, it is possible that this number rises, at least in the beginning, giving the impression that the company is not treating its customers fairly even if this is not the case. The number of complaints would increase because customer awareness in general might have augmented.

Literature on financial supervision effectiveness usually distinguishes between hard and soft indicators, based on quantitative and qualitative data, respectively (see Sijbrand and Rijsbergen, 2013; Hilbers et al., 2013). Overall, hard indicators are characterized by a higher degree of objectivity and verifiability, are straightforward to understand and can be easily monitored over time. Though they are less objectively observable and verifiable than many hard indicators, the importance of soft indicators has been growing in recent years because financial supervision is increasingly focused on forward-looking aspects such as governance, conduct and culture.

Those who use hard indicators examine how market players evaluate the risk profile of a certain financial institution. They typically take into account credit ratings, stock prices or the level of credit default swap spreads. One can also choose indicators referred to specific supervisory requirements, such as solvency and liquidity ratios for banks, insurers and other financial institutions (i.e., the total BIS ratio and Tier 1 ratio for banks)³¹. Both these types of indicators (market- and supervisory requirements-based indicators) should be adjusted to account for the impact of the economic cycle,³² in order to reduce the weight of external factors and make it easier to identify a causal relationship between, say, the level of solvency ratios within the banking industry and banking supervisor's interventions. Hard indicators can also refer to the number of bankruptcies among supervised institutions and the associated amount of losses.³³ Alternatively, hard indicators can be represented by measures of economic benefits for consumers, even if calculating those measures is not straightforward.³⁴ Finally, hard indicators can be obtained by looking at the time needed for supervisory activities such as procedures, applications, assessments, providing answers to questions.³⁵ These latter are excellent indicators for the efficiency of a supervisor, particularly helpful when estimating the effects of supervision at an operational level. However, it is noteworthy that throughout time they cannot fully capture the actual quality of the supervisory activities: for example, the assessment of a bank's application for market access is

³¹ Among other quantitative indicators, it is worthwhile to recall the Australian Prudential Regulation Authority's (APRA) Performing Entity Ratio (PER) and the Money Protection Ratio (MPR). The former is given by the ratio of the number of supervised institutions that meet their commitments to beneficiaries in a given year on the total number of supervised institutions; the latter is the dollar value of liabilities to beneficiaries that remained safe in a given year, divided by the total amount

³² Based on the known pro-cyclicality phenomenon, bank capital requirements tend to decrease during periods of economic growth and to increase during recessions. See, among the others, Panetta and Angelini (2009).

³³ The U.S. Federal Reserve adopts an indicator measuring the losses from state member banks to the Deposit Insurance Fund (DIF) and annually reports the outcome (Federal Reserve, 2011).

³⁴ The Netherlands Competition Authority (NMa), for example, publishes the directly quantifiable benefits of formal supervisory actions, such as its decisions to impose sanctions on cartels, tariff regulations in the energy market and withdrawals of license applications (Hilbers et al., 2013).

³⁵ The English FSA used to periodically report such indicators (FSA, 2011). In the United States, the Federal Reserve annually monitors the number of reports of its supervisory examinations that are completed within the established deadlines.

crucial for the final achievement of the ultimate stability goal, but it can be a long-time consuming activity.

Qualitative information is at the basis of the so called soft indicators. Public confidence in the financial sector or in financial supervisors is an example of soft indicator and is normally measured through periodic random surveys. Soft indicators can also be based on the outcome of external or peer reviews that measure the level of compliance towards (inter)national supervisory standards.³⁶ For example, through its Reports on the Observance of Standards and Codes (ROSCs), the IMF summarizes the extent to which countries observe certain internationally recognized standards and codes and examines the quality of member states' supervision, based on international standards that represent minimum requirements for the supervision of banks, insurers and securities brokers. These standards include the Basel Core Principles for Effective Supervision and the IAIS Core Principles for Insurance Supervision (IMF, 2005). To provide some examples, in Appendix 3 we show three tables with some paragraphs extracted from the IMF Report on the Observance of Standards and Codes referred to the Italian financial system (IMF, 2013b), about the Bank of Italy, Ivass and Consob. Again, soft indicators about the effectiveness of financial supervision might be inferred from the content of the above mentioned IMF Financial Sector Assessment Programs. These reports conclude with the preparation of a Financial Sector Stability Assessment (FSSA), which focuses on issues of relevance to IMF surveillance and on the compliance of a country's financial sector with the most relevant international standards. In Appendix 3 we also report few paragraphs extracted from the Financial System Stability Assessment on the Italian financial system (IMF, 2013a) just to provide some examples.

To conclude this section, the following Table 3.1, taken from Hilbers et al. (2013) provides an overview of the indicators that can be used to assess the effectiveness of financial supervision and identify whether they are suitable for the strategic, tactical or operation level. As already pointed out, relative to soft indicators hard indicators are more objective and more easily verifiable, generally easier to understand and monitor over time. Nevertheless, given the increasing need to focus on forward-looking aspects, the relevance of soft indicators is expected to grow in the near future.

³⁶ See again the above mentioned IMF FSAPs, where the IMF analyzes the resilience of the financial sector, the quality of the regulatory and supervisory framework, and the capacity to manage and resolve financial crises.

Table 3.1: Performance indicators at different levels

| Suitable for: Type of indicator: | Strategic level: | Tactical level: | Operational level: |
|--|------------------|-----------------|--------------------|
| Hard indicators | | | |
| 1. Market data: <ul style="list-style-type: none"> CDS spreads, credit ratings and equity prices Levels of private investments in high-risk products, nature of financial products launched | | X | |
| 2. Supervisory ratios: <ul style="list-style-type: none"> BIS and Tier-1 and Tier-2 capital ratios, leverage ratio and liquidity ratios (LCR, NSFR) for banks Solvency ratios (insurers) and funding ratios (pension funds) | | X | |
| 3. Failures and losses: <ul style="list-style-type: none"> Performance Entity Ratio (PER) Money Protection Ratio (MPR) Pay-outs to Deposit Insurance Fund (DIF) Number of bankruptcies (PD) Losses due to failures (average LGD) | X | X | |
| 4. Economic benefits: <ul style="list-style-type: none"> Annual economic benefit for consumers Costs of financial crises | X | X | |
| 5. Efficiency indicators: <ul style="list-style-type: none"> Throughput time for procedures, applications Number of supervisory reports completed on time Number of supervisory staff per unit of currency protected | | | X |
| Soft indicators | | | |
| 1. Public confidence: <ul style="list-style-type: none"> Household surveys Consumer awareness surveys | X | | |
| 2. Supervisory regimes: <ul style="list-style-type: none"> Total number of institutions migrated between supervisory regimes Total number of institutions in the highest (riskiest) supervisory regime Average length of stay of institutions in supervisory regimes | | X | |
| 3. Compliance with soft assessment criteria: <ul style="list-style-type: none"> Non-compliance with criteria regarding business models Non-compliance with criteria regarding governance | | X | |
| 4. International standards assessments: <ul style="list-style-type: none"> IMF FSAP / ROSCs BCBS / RCAP EBA Surveys | | X | X |
| 5. Stakeholder surveys: <ul style="list-style-type: none"> Firm feedback survey Views of industry observers Surveys among peer supervisors | | X | X |

Source: Hilbers et al. (2013)

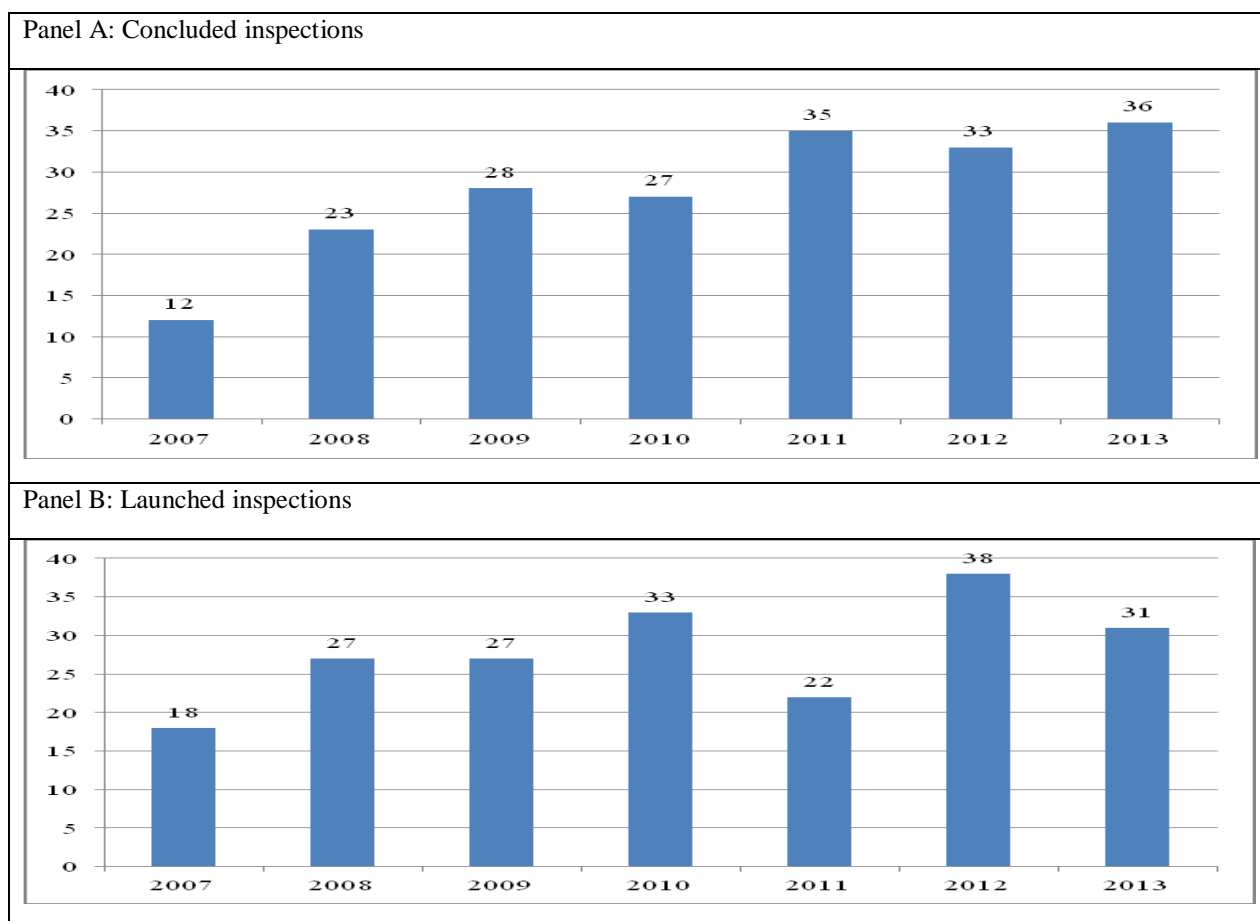
3.4. Measuring the effectiveness of financial supervision through hard indicators: evidence from the European securities markets authorities

In this paragraph we present some data about the supervisory actions adopted by some of the major supervisors within the European countries considered in our research. We have to warn the reader that this analysis suffers from a significant data issue: first, not all supervisors provide useful and necessary information to assess the effectiveness of their actions; second, when they release some information, they do not follow a standardized format, so we have to face a huge heterogeneity in data provision and reporting across different countries. In order to provide a comparison among the supervisors we are interested in, we mainly look at data concerning inspections, investigations and fines, where possible, and we focus on the securities markets agencies of Italy, France, UK and Spain.

We start this empirical analysis by examining the Italian Consob. The following Figure 3.1 presents the number of total inspections both concluded (panel A) and launched (panel B) by the Consob during the 7-year period 2007-2013. In both cases, we observe a sharp increase in the number of inspections relative to 2007, when the financial crisis broke out. In particular, the Consob concluded 36 inspections and launched 31 new investigations³⁷ concerning supervised entities in 2013, whereas it had concluded and launched 12 and 18 inspections, respectively, in 2007. On average the Italian authority launched/concluded 27 inspections per year during the observed time horizon.

³⁷ It should be noted, however, that the inspection activity experienced a significant increase during 2014, with 41 launched inspections.

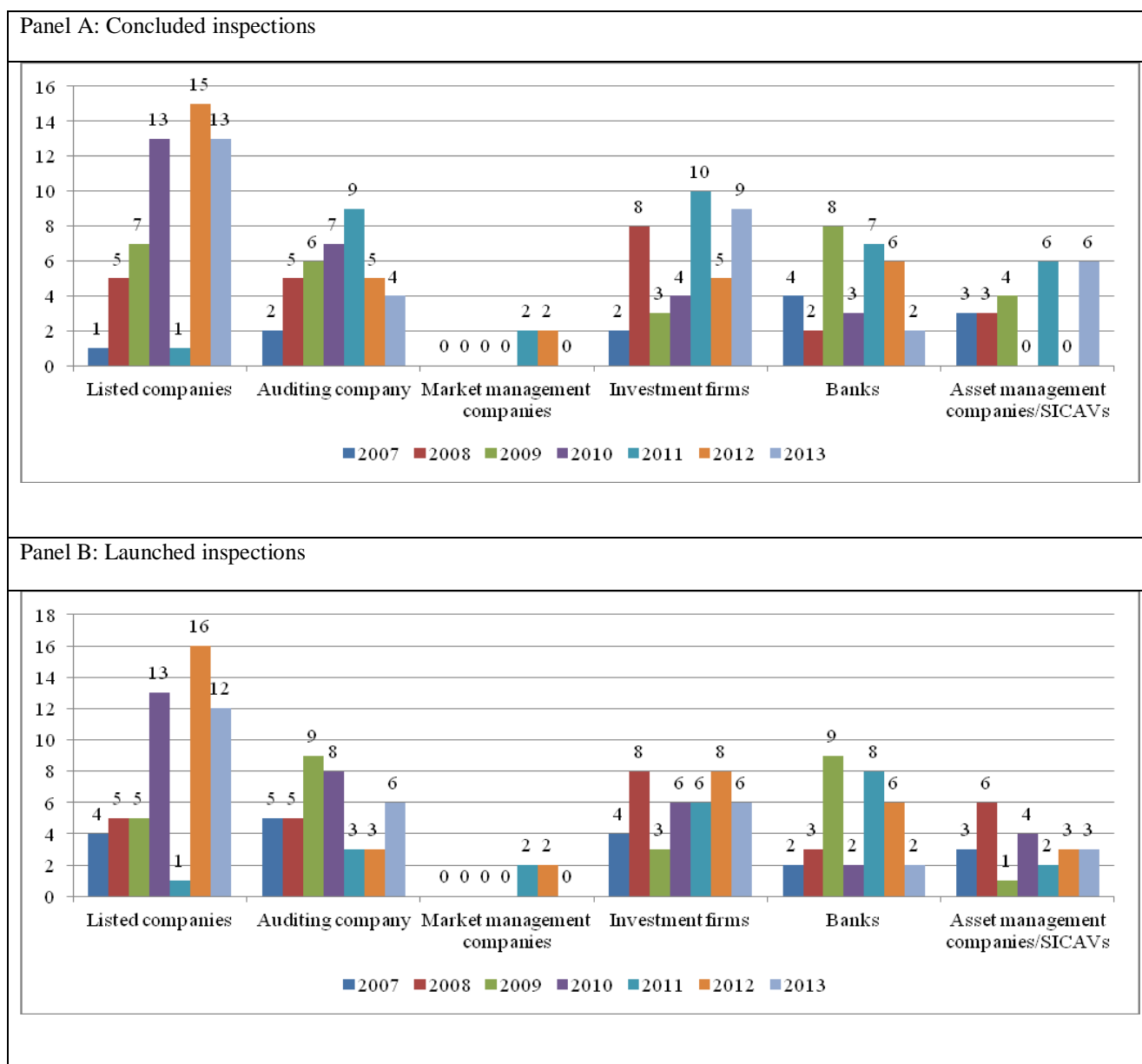
Figure 3.1: Consob's inspections (2007-2013)



Source: Consob (2014).

The following Figure 3.2 shows the breakdown by category of supervised entity of the total number of inspections. Most of them concern listed companies, auditing companies and investment firms. The number of concluded inspections of listed companies and investment firms has increased over the years: it rose from 1 in 2007 to 13 in 2013 for the former; it grew from 2 to 9 for the latter. On average, the Consob concluded 8 inspections on listed companies per year, 5 on auditing companies and banks, 6 on investment firms and 3 on asset management companies/SICAVs. The average number of launched inspections per year is in line with that of concluded inspections for all the categories of intermediaries taken into account.

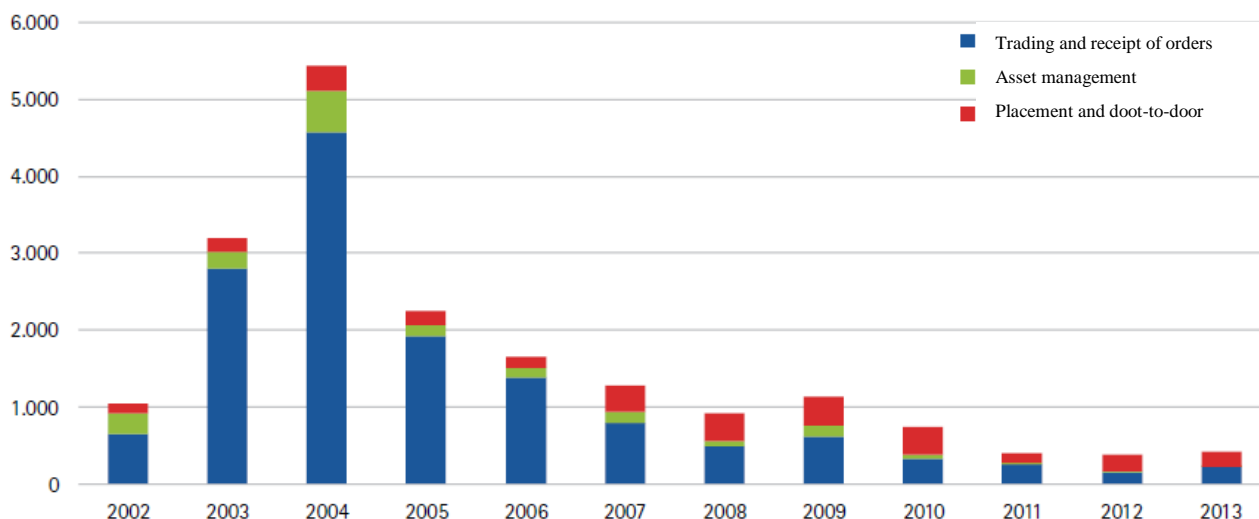
Figure 3.2: Consob's inspections: breakdown by category of supervised entity (2007-2013)



Source: Consob (2014).

Inspections concerning intermediaries are usually driven by complaints, which in 2013 totaled 414, showing a 10% increase relative to 2012 mainly because of the increase in the number of reports on trading and receipt of orders (see Figure 3.3). Nevertheless, it is noteworthy that the total number of complaints is definitely lower than both the maximum observed in 2004 and the relative (but much lower) post-crisis peak recorded in 2009.

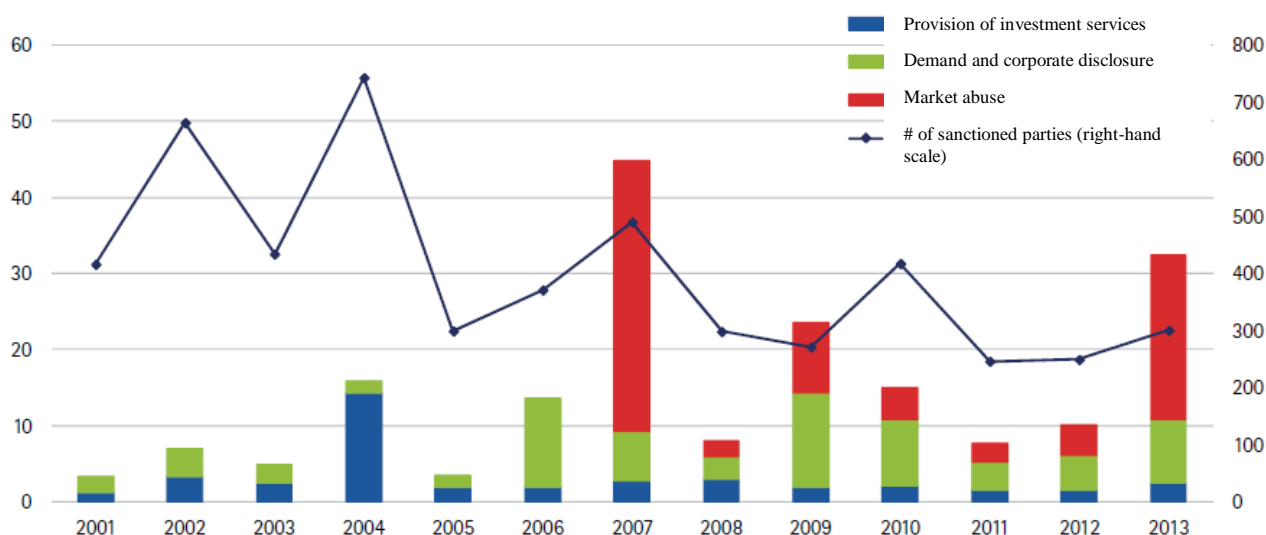
Figure 3.3: Complaints about investment services received by the Consob (2002-2013)



Source: Consob (2014).

In 2013, 142 disciplinary proceedings were concluded, of which 135 resulted in the application of a sanction due to ascertained breach of the provisions of the Consolidated Law on Finance and implementation regulations. Total penalties applied amounted approximately to 32.5 million euro, more than tripled relative to 2012, but definitely lower than the amount of sanctions imposed in 2007. Most sanctions are referred to the violation of market abuse-related provisions (see Figure 3.4).

Figure 3.4: Financial penalties imposed by the Consob (mln euro) – (2001-2013)

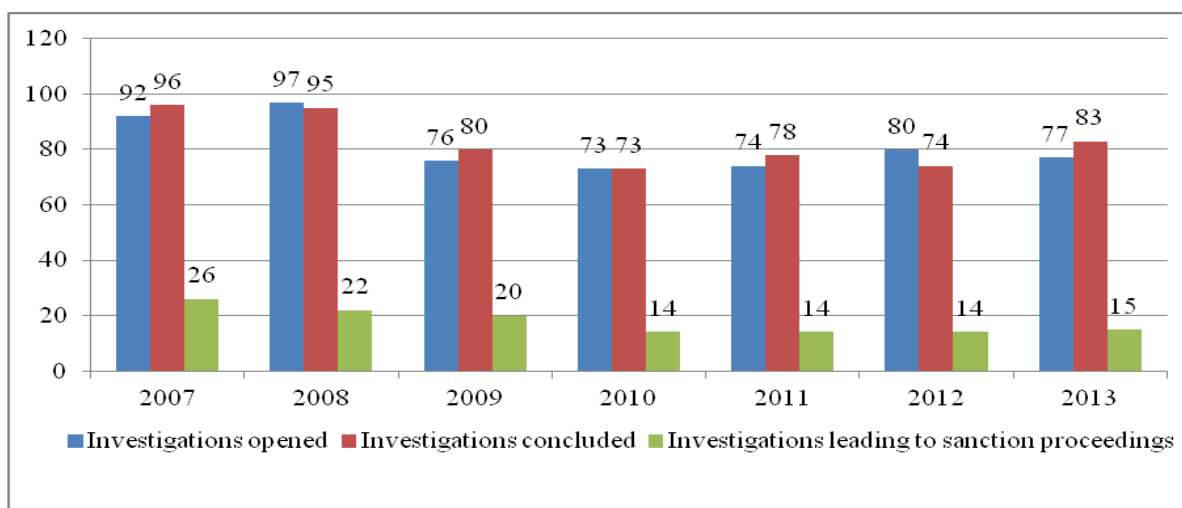


Source: Consob (2014).

Now let's analyze some characteristics of the enforcement activity run by the French Autorité des Marchés Financiers (AMF). As pointed out in chapter 2, within the newly simplified supervisory architecture of the French financial system, the AMF is in charge of transparency and conduct of business. In particular, the AMF carries out surveillance to safeguard the quality of financial disclosure and monitor financial intermediaries' compliance with their professional obligations. The AMF conducts inspections and investigations, through which it performs: day-to-day market surveillance, which includes monitoring trading and trader behavior to detect market anomalies; documentary audits and on-site inspections of investment services providers (ISPs), including asset management companies and financial investment advisers, to ensure they comply with the rules of their profession; investigations, which particularly look at financial disclosures and market abuse. Most investigations originate from market surveillance, supervision of listed companies, or from market complaints. To carry out its duties, the AMF can call on external auditing bodies, such as the Banque de France, Euronext Paris, the central depository and audit firms.

As of 2013, AMF's supervisory activities extended to 613 asset management companies, 91 investment firms, 249 credit institutions that provide investment services and 4,883 financial investment advisers. If irregularities are suspected, the AMF may open an investigation into possible market offences, such as insider dealing, price manipulation or dissemination of false information. The nature of investigations is such that they are never predictable and, unlike inspections, the sequence of events cannot be set out in advance, because each investigation depends on the specific aspects of the case. Investigations are undertaken when a situation raises suspicions of market abuse by an issuer, an individual or institutional investor, a market professional or any other person or entity. The AMF General Secretary presents a written report on every investigation to one of the specialized commissions of the AMF Board, which may then decide to activate sanction proceedings. The following Figure 3.5 shows that the AMF opened 77 investigations in 2013 (80 one year before) and 83 investigations were closed (74 in 2012). On average the French agency launched and concluded, respectively 81 and 83 investigations per year over the 7-year time horizon taken into account.

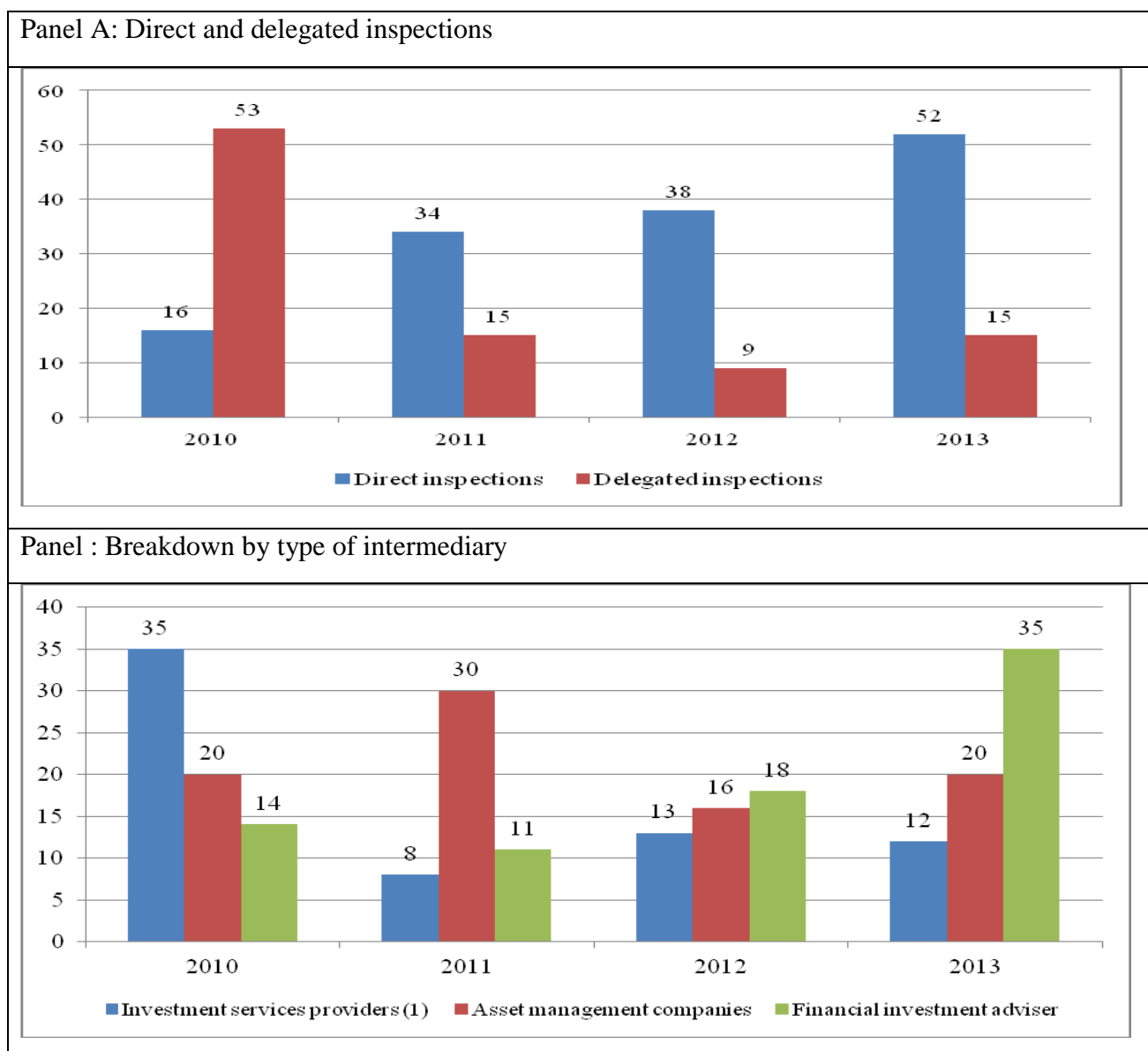
Figure 3.5: AMF's investigations (2007-2013)



Source: AMF (2014).

As concerns on-site inspections, they are initiated by the AMF General Secretary. The findings of the inspections are written up in a report, which is then submitted to the inspected entity, unless the AMF Board decides otherwise. The entity is then asked to submit its remarks in writing. In each case, a follow-up letter listing the remedial action to be taken is then sent to the entity. If the report reveals serious misconduct, it is forwarded to the AMF Board, which determines whether there are grounds for initiating sanction proceedings. The following Figure 3.6 shows the number of direct and delegated inspections over the period 2010-2013 and the breakdown by type of financial intermediary. Overall, in 2013 we observe an increase in the number of both the direct and delegated inspections, relative to 2012. In particular, in 2013 the AMF was directly involved in 52 (38 in 2012) direct inspections and 15 (9 in 2012) inspections were delegated to other entities. On average, the French authority conducted a total of 58 inspections per year in the 2010-2013 period, of which 23 were delegated to other entities and 35 were direct interventions. As concerns the breakdown by type of intermediary, on average, for each year of the 4-year time horizon we take into account, the AMF ran 22 inspections on asset management companies, 17 on investment services providers (other than asset management companies) and 20 on financial investment advisers.

Figure 3.6: AMF's inspections (2010-2013)



Source: AMF (2014).

(1) not including the asset management companies.

The Spanish Comisión Nacional del Mercado de Valores (CNMV) focuses on improving the quality of information disclosure to the market. The actions of the Commission concern companies which issue securities for public placement, the secondary markets in securities and investment services companies. The Commission also exercises prudential supervision over brokers-dealers, collective investment schemes and portfolio management companies in order to ensure transaction security and the solvency of the system.

In 2013 the CNMV made a significant effort to strengthen preventive supervisory actions in the field of investment service providers so as to detect and control problems for investors as early

as possible. The CNMV sent out 1,170 deficiency letters to supervised entities, 15% more than 2012. 71% of these letters originated from off-site supervision, while the rest originated from on-site inspections. Table 3.2 presents a breakdown of the deficiency letters by subject. Almost half of the letters fall under the heading “Other notifications”, which includes informative letters addressed to the sector (which includes those relating to the procedure for sending electronic deficiency letters), notifications to other bodies and other documents.

Table 3.2: Supervision of investment firms and credit and savings institutions: deficiency letters sent by the CNMV in 2013

| Type of deficiency letter | Off-site | On-site | Total |
|--|----------|---------|-------|
| For late filing of information | 137 | 22 | 159 |
| Requests for information | 171 | 204 | 375 |
| Corrective measures or recommendations | 36 | 47 | 83 |
| Other notifications | 492 | 61 | 553 |
| Total | 836 | 334 | 1,170 |

Source: CNMV (2014)

As concerns collective investment schemes (CIS), the CNMV’s supervisory activity in 2013 was also characterized by the special attention paid to preventive analysis. The agency’s objective was to check whether CIS management companies are able to adequately comply with their obligations, correctly resolve conflicts of interest and provide sufficient information on investments to the unit-holders of mutual funds and the shareholders of investment companies (SICAVs). The agency combined off-site supervision and on-site inspections. The former analyses the financial statements of the CIS, including a list of individual positions of the portfolio assets and the derivatives of the registered CIS. On-site inspections take into account more specific aspects of the CIS which cannot be reflected in standardized reporting models. The CNMV sent 1,596 deficiency letters, whose breakdown is shown in Table 3.3. A total of 537 deficiency letters corresponded to late filing of information – mostly CIS auditor’s reports – while another 135 related to requests for information necessary for supervision of the entities different from that which is generally available. In addition, 630 letters were sent requesting the adoption of improvements to resolve the incidents detected during supervision. A further 294 other notifications were sent for different issues, but particularly in response to enquiries and, above all, those aimed at collecting the contact details of the entities.

Table 3.3: Supervision of collective investment schemes (CIS): deficiency letters sent by the CNMV in 2013

| Type of deficiency letter | Off-site | On-site | Total |
|--|----------|---------|-------|
| For late filing of information | 537 | 0 | 537 |
| Requests for information | 83 | 52 | 135 |
| Corrective measures or recommendations | 570 | 60 | 630 |
| Other notifications | 250 | 44 | 294 |
| Total | 1,440 | 156 | 1,596 |

Source: CNMV (2014)

Table 3.4 shows that in 2013, the CNMV initiated 37 new disciplinary proceedings, investigating a total of 57 possible breaches. Over the year, the CNMV concluded 20 proceedings which included a total of 40 breaches. Two of the concluded proceedings were initiated in 2011, fifteen in 2012 and three in 2013. In 2013 71 fines were imposed for a total amount of €4,150,000; they were 57 in 2012 and totaled more than €24 million.

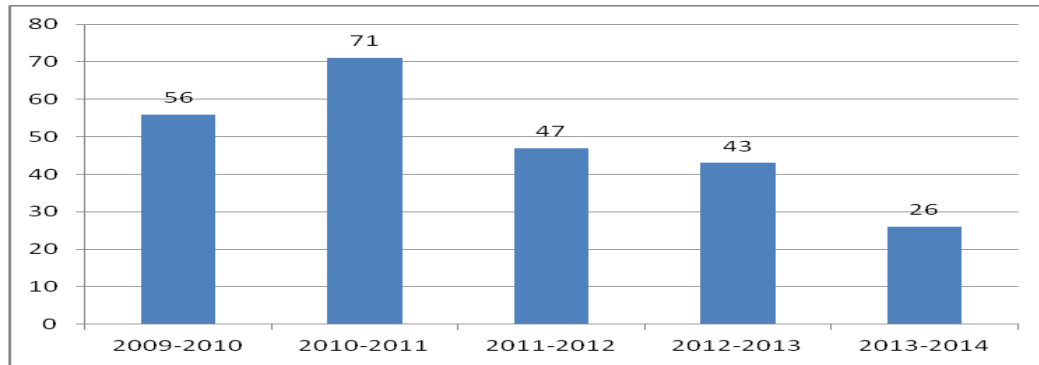
Table 3.4: Proceedings initiated and concluded by the CNMV (2012-2013)

| | 2012 | 2013 |
|---------------------------------|------|------|
| Number of proceedings initiated | 30 | 37 |
| Number of proceedings concluded | 17 | 20 |
| <i>of which</i> | | |
| <i>initiated in 2010</i> | 2 | - |
| <i>initiated in 2011</i> | 9 | 2 |
| <i>initiated in 2012</i> | 6 | 15 |
| <i>initiated in 2013</i> | - | 3 |

Source: CNMV (2014)

Finally, we examine data released by the English Financial Conduct Authority (FCA). The FCA publishes the Enforcement Annual Performance Account, which looks at the fairness and effectiveness of the FCA's enforcement function over its first year. In 2013/14 the FCA took action against 28 individuals, imposing 26 prohibitions, and obtaining 5 criminal convictions. The following Figure 3.7 shows the number of prohibitions imposed by the FCA/FSA over the period 2009-2014, which, after peaking in 2010-2011, started a decreasing trend down to the last available value of 26.

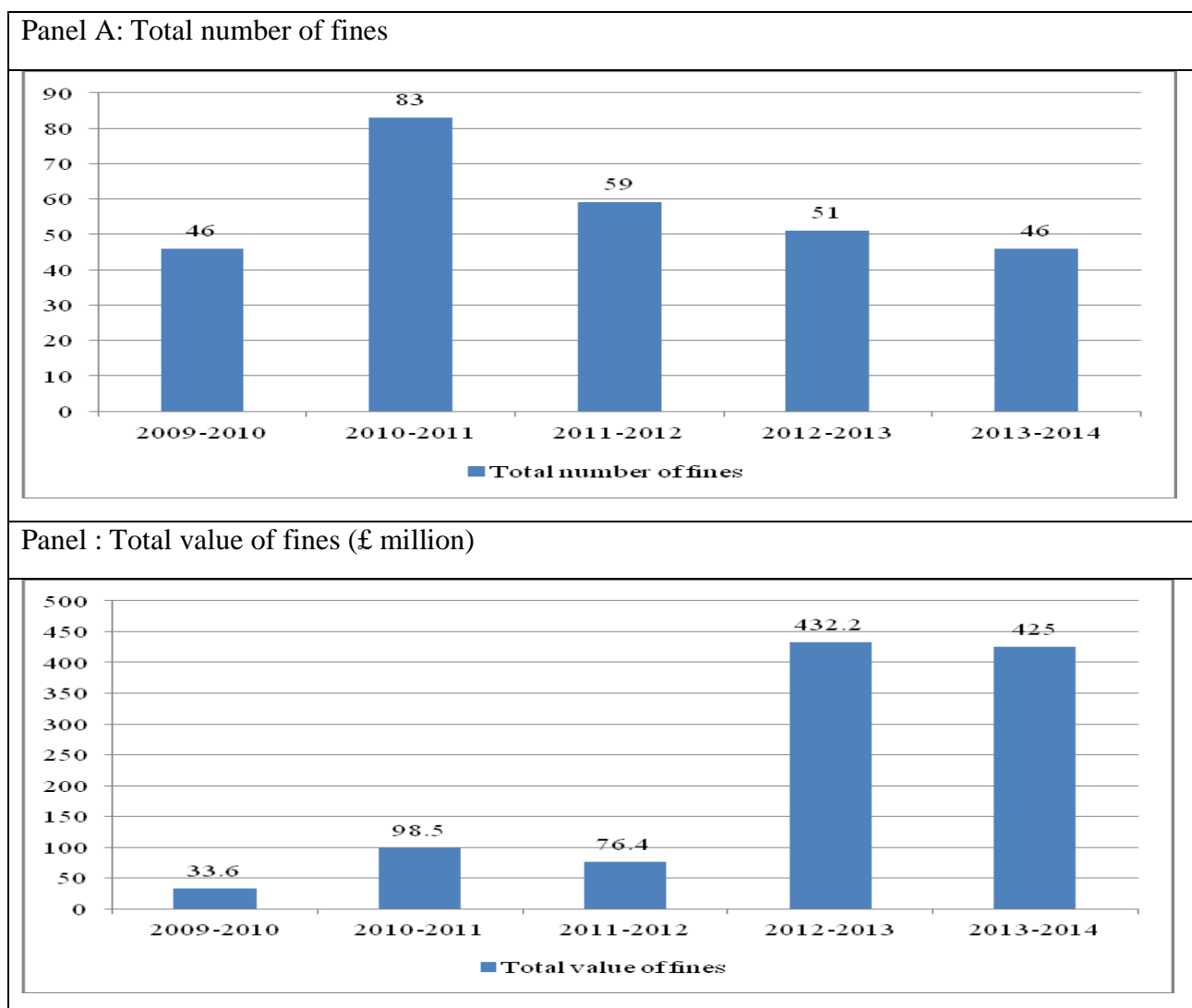
Figure 3.7: Number of prohibitions imposed by the FCA/FSA



Source: FCA

To give some more details about the enforcement process, the following Figure 3.8 shows in panel A the total number of fines and in panel B their total value. The number of fines shows a trend which is very close to that observed for the number of prohibitions: the number of fines was 83 in 2010/2011, when it reached its maximum, and then started a constant decline to the value of 46 referred to the 2013/2014 financial year, with an average value of 57. On the contrary, the total value of the fines imposed has dramatically increased in the last two available financial years, if compared to the first three years of the time horizon taken into account: it rose from £33.6 million observed in the financial year 2009/2010 to £425 million of the financial year 2013/2014.

Figure 3.8: FCA's fines



Source: FCA.

Being aware of both the data-related issues affecting this analysis, but also in light of the results of the direct costs analysis of main European supervisors presented in chapter 2, a very preliminary consideration about the effectiveness of financial supervision can be provided. Focusing on authorities in charge of supervision on securities markets and entrusted with the goals of transparency and conduct of business (namely Consob, AMF, CNMV and FCA), it appears that the higher direct costs – especially the per capita cost of staff - of the Italian authority do not correspond to a higher effectiveness of its supervisory action, at least if we measure it through the rough, “hard” indicators of an authority’s output taken into account here.

3.5. Concluding remarks

The financial crisis has not only triggered developments in financial legislation and regulation. In fact, financial supervisors' performance was brought into question and both stakeholders and supervisors themselves started to take a critical look at supervisory quality and effectiveness.³⁸ Over the past years, supervision itself and supervisors' methods have undergone fundamental changes. The available supervisory toolkit is considerably wider than before.

Nevertheless, we believe it is worthwhile to focus on the key attributes that still make supervision effective. Starting from what the crisis has taught us, overall, supervision has to become more forward looking, also accounting for so called "soft" controls, such as business models and culture of supervised financial institutions. In fact supervisors have traditionally adopted a backward looking approach, based on past financial performance. For this reason supervisors were often late by the time a financial institution's performance showed its problems.

Then, due to the higher interconnectedness characterizing the financial sector, supervision should adopt a stronger macro-perspective by looking beyond individual institutions (Kellermann et al., 2013). Connecting macroprudential analysis with microprudential supervision would strengthen the surveillance of risk factors that can pose a threat to the entire sector (Brunnermeier et al. 2009). As financial institutions are becoming more and more internationally active, the need for international arrangements for cross-border supervision is increasing and the necessity of a more internationally oriented supervision for cross-border institutions has been dramatically highlighted by the crisis.

Beyond that, traditionally required standards for sound and effective supervision should be adequately stressed. Good supervision must be intrusive, in the sense that, since it is based on a deep knowledge of the supervised entity, supervision cannot be outsourced and cannot rely solely or mainly on offsite analysis. Keeping in mind the peculiar nature of financial intermediaries, financial supervisors have to be involved in the daily monitoring of the industry. Good supervision must be skeptical but proactive: supervisors must question, even in good times, supervised firms' behavior, they should rely less on subtle strategies of soft enforcement and persuasion because the crisis has also showed that moral suasion has lost some of its effectiveness (Viñals and Fiechter, 2010). Supervision must be intrinsically countercyclical, especially during good times. Supervisors must be able not only to understand how institutions are currently doing, but also how they will be able to

³⁸ Here we mention only two examples from European countries: in the UK, the Turner Review made recommendations for the supervisory approach to be adopted (FSA 2009); De Nederlandsche Bank published a new Supervision Strategy for 2010–2014 that translated the lessons learned from the crisis into a new method of supervision and new areas of attention for supervisors (DNB 2010).

cope with changing circumstances. Independence and accountability arrangements are essential foundations of supervisory governance and have a positive impact on the soundness of the financial system (see Masciandaro et al., 2008 for an analysis referred to the banking system). According to Quintyn and Taylor (2002) accountability and independence are somewhat complementary to each other, in the sense that supervisors can increase their independence by being transparent. Effective supervision should be comprehensive. Even while recognizing the limitations of their scope, supervisors must be ready to identify emerging risks, such as those arising from systemically financial institutions, interconnectedness and cyclicity. Due to the constant innovation characterizing modern financial systems, supervision has also to be adaptive. Consequently, supervisors should closely follow changes in business models of financial institution and adapt to changes in the perimeter of regulation. The traditional fines and instructions have proven to be instruments with a scant preventive power. That's why financial supervisors have started focusing on how to influence the behavior of supervised companies and have been increasingly relying on communication as an instrument to reach their objectives. Finally, supervision has to be conclusive, in the sense that supervisors must follow through conclusively on matters that are identified as these issues progress through the supervisory process.

Financial supervisors are expected to improve their performance measurement and management systems. Nevertheless, we believe that the importance of adequately backing institutional foundations should be reaffirmed. In order to make financial supervision more effective, the policy and institutional environment must support the supervisory will and ability to act. This means that the following requirements should be satisfied: i) a clear and credible mandate; ii) a legal and governance structure that promotes operational independence; iii) adequate budgets that provide sufficient resources; iv) a framework of laws that allows for the effective discharge of supervisory actions; and v) tools commensurate with market sophistication.

Finally, our preliminary analysis of the benefits of supervision, measured through selected hard indicators for a sample of authorities in charge of transparency and securities markets supervision, does not seem to indicate a correlation between higher direct cost of supervision – especially with regard to the per capita cost of staff – and higher benefits produced by supervisory actions. We are aware that there is significant room for refinement and strengthening of the benefits analysis, and of the relevant conceptual and technical challenges involved: future research might expand the benefits analysis by including more hard indicators and soft indicators and enlarging the scope of the investigation to include more authorities.

Chapter 3 – Appendix

This Appendix aims at showing how soft indicators of supervision effectiveness can be extracted from the outcome of external reviews that measure the level of compliance towards (inter)national supervisory standards.

We first consider the IMF Report on the Observance of Standards and Codes referred to the Italian financial system (IMF, 2013b). Table 3.A.1 focuses on IMF staff's comments about the Bank of Italy's overall supervisory approach and the tools and techniques at the supervisor's disposal, in comparison with Basel Core Principles. Table 3.2.A presents IMF staff's comments about the compliance of IVASS overall structure and organization with what required by the Insurance Core Principles in terms of resources, accountability, transparency, independence, legal protection, and so on. Table 3.A.3 focuses on the compliance of the Italian standards in terms of inspection, investigation and surveillance powers of the Bank of Italy and Consob with the IOSCO principles of securities regulation.

Table 3.A.1: Summary compliance with the Basel Core Principles – ROSC

| Core principles | Comments |
|---|----------|
| 8. Supervisory approach | |
| Setting the scope for the supervisory activities for individual banks is a forward looking risk-based process. Banks are categorized based on systemic significance and level of risk. In determining the level of risk, BI incorporates not only current risk indicators but also looks at risk management and corporate governance issues that may lead to future problems. The analysis of individual banks and banking groups is complemented by macro-prudential analysis that aims at identifying vulnerabilities in the financial system that may pose systemic risks and affect the real economy. SREP is performed annually and results in banks being assigned a risk rating that is used to determine the appropriate supervisory scope of activities for the bank. | |
| 9. Supervisory techniques and tools | |
| The supervisory process is detailed and involves a blend of onsite and offsite activities. The process is based on a compendium of activities contained in the SREP guidance; some of the key elements of which include: Risk Assessment System, ICAAP, credit registry, onsite inspections, and offsite reviews. Offsite analysis is systematic, carried out at set intervals, and based on analysis of data and information that banks report to BI. Based on the offsite analysis results, inspections are planned and carried out. Inspections may be: full scope, targeted (business areas, specific risks, operational profiles, corrective action follow-up) and horizontal. Inspections focus on exposure to significant risks and risk management: adequacy of structural and functional components of governance and control systems, as well as economic and capital safeguards; the reliability of data and information given to BI; the compliance with the regulatory framework with particular attention to prudential requirements. | |

Source: IMF (2013b).

Table 3.A.2: Summary compliance with the Insurance Core Principles – ROSC

| Core principles | Comments |
|--|----------|
| 2. Supervisor The supervisor, in the exercise of its functions and powers: is operationally independent, accountable and transparent; protects confidential information; has appropriate legal protection; has adequate resources; and meets high professional standards. | |
| <p>IVASS is a newly established authority (formerly ISVAP) for the supervision of insurance, now operating with the Bank of Italy, under the oversight of the President of IVASS (who also serves as the Director General of the Bank of Italy) and Council of IVASS, who serve with banking regulators in a Joint Directorate responsible for strategic financial and insurance supervision.</p> <p>The Council is in charge of IVASS organization, personnel, budget decisions, and IVASS internal matters. The currently published list of Joint Directorate, president and council responsibilities indicate that virtually all supervisory, inspection and anti-fraud decisions, international relations, consumers, intermediaries and loss adjusters must be approved by the president and council. The list is comprehensive and includes such ministerial functions as writing letters to insurers for routine documentation for supervisory activity, to invitations to consumer associations to schedule meetings with IVASS staff. Once IVASS is fully organized and structured in the next 120 days, it is recommended that the president and council exercise the authority to delegate ministerial matters to appropriate heads of IVASS Divisions.</p> <p>Internal audit is performed by one staff member that also has other duties. The scope and audit detail need to be strengthened, which will require additional resources.</p> <p>The supervisory process is informal and quality control over the supervisory process is lacking in formal supervisory processes.</p> <p>It is recommended that IVASS develop clear and consistent fundamental procedures for financial analysis supervision that identify troubled companies and then implement a troubled company task force.</p> <p>The assessors recommend instituting a formal internal quality controls process for supervision and the development of formal supervisory processes that allow for emergency action and cross checking of the activities of each supervisory division to ensure accuracy and consistency in regulatory action.</p> <p>IVASS has the discretion to directly hire up to 5 percent (20 persons) of staff without public competition. This provides IVASS with the availability to have access to specialized skills, if needed.</p> <p>While the powers to take immediate action are enacted in regulation, supervisory action suffers delays. There have been a few examples of undue delays requiring several years of ISVAP periodically writing letters, before it finally took action to shut down an unsound operation and notify consumers.</p> <p>Following the financial crisis, Parliament introduced elements of asset evaluation in anti-crisis measures that are not market consistent and deviate from established accounting principles; however, IVASS has maintained regulatory oversight of the insurer's financial position as companies are obliged to disclose all calculations with and without application of the anti-crisis measures, and IVASS still has the power to intervene in regulatory solvency situations.</p> | |

Source: IMF (2013b).

Table 3.A.3: Summary implementation of IOSCO objectives and principles of securities regulation – ROSC

| Core principles | Comments |
|---|----------|
| Principle 10. The Regulator should have comprehensive inspection, investigation and surveillance powers. | |
| <p>Both BI and Consob have been given broad powers to supervise, and inspect regulated entities, conduct surveillance of authorized securities markets, and conduct investigations in connection with breaches to securities laws. To this end, they both have been given compulsory powers commensurate to their respective mandates.</p> | |
| Principle 12. The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program. | |
| <p>The supervisory approach of BI and Consob relies heavily on robust offsite monitoring and a more limited use of onsite inspections, although the coverage by market share (measured in terms of assets and clients) is high. The enforcement approach relies more on remedial actions, which while necessary might not be sufficient. Furthermore pecuniary sanctions imposed for offences other than market abuse/short selling violations are low to a large extent due to the limitations in the law and judicial practices. Criminal enforcement faces challenges, including a strong reliance on settlements and conditional execution which can detract from the deterrent effect that criminal enforcement should have.</p> | |

Source: IMF (2013b).

In the rest of this appendix we report some paragraphs extracted from the Financial System Stability Assessment on the Italian financial system (IMF, 2013a). Paragraphs 43 and 44 are referred to the compliance of Italian banking sector regulation and supervision with the Basel Core Principles (BCP), paragraphs 45, 47, 48 and 49 provide information about the compliance of Italian regulation and supervision on securities markets with the IOSCO (International Organization of Securities Commissions) standards, and, finally, paragraphs 50, 51 and 53 are taken from the analysis of the compliance of the Italian insurance sector regulation and supervision with the International Association of Insurance Supervisors (IAIS) principles.

&&&

43. BI has a strong supervisory review process and applies Pillar 2 capital add-on extensively. *The core supervisory process is well-defined, strong, and integrated. BI (Bank of Italy) has a well established reputation for independence, professional excellence, and integrity. The information used for supervision ranges from detailed credit registry records and extensive reporting to broader risk management overview contained in the Internal Capital Adequacy Assessment Process, and these data are available to the offsite unit. As a result of Supervisory Review and Evaluation Process (SREP), banks receive risk assessment grades that determine the supervisory planning for each. Key risk areas (credit, financial, operational, profitability, capital, strategic and governance) are graded and an overall grade is assigned to the bank. The BI also takes corrective actions on quantitative issues, such as credit risk, loan classifications, and capital adequacy but also on qualitative issues, such as the adequacy of corporate governance and internal controls.*

44. Gaps in the legal and regulatory framework are largely mitigated by intensive and intrusive supervisory action on- and offsite, on a bank-by-bank basis. *However, there are areas requiring attention so that Italy can meet the highest standards of supervisory effectiveness.*

- ***The lack of powers to suspend and remove individual directors and senior managers may hamper BI's timely corrective action capacity.** Furthermore, the narrow definition of fit and proper criteria should be expanded so that adverse regulatory judgments are taken into account for directors, and financial soundness—including the capacity to provide additional capital, if needed—for shareholders. Similarly, the lack of power to remove external auditors can be a significant limitation.*
- ***The new regulation for related-party lending is an important addition to the prudential framework.** However, it has some gaps: some exposures are risk-weighted for the calculation of limits, there is no specific requirement that related-party lending is made on market terms, and it would have been preferable if the regulation had aligned the definition of related parties to that used for large exposures. The BI can use its supervisory discretion to apply stricter definitions of connected parties and stricter limits and controls (notably in situations when economic influence is the connecting element between the related parties), thereby mitigating these deficiencies through supervisory practice. But as this regulation is recent, enforcement has only just started.*
- ***The regulatory framework for management and control of country and transfer risk is not adequate.** In practice, this is not a major supervisory gap, as the BI addresses this risk, if material, in the largest internationally active banks. Nevertheless, there are other Italian banks with exposures to country risk. The BI should therefore issue guidance that applies to all banks. Banks need to be made aware that an increase of credit risk in a country can lead to private contracts not being observed, independently of sovereign or currency risk.*

...

45. Italy exhibits a very high level of implementation of the IOSCO principles. Overall, the legal and regulatory framework is sound and the regulatory authorities have implemented very sophisticated arrangements for offsite supervision that result in a robust system of supervision— indeed approaching global “best practice” in certain areas. These arrangements have been developed using extensive data reporting obligations that allow the BI and the securities supervisor, Consob, to have a much more precise understanding of intermediaries and products and their characteristics than is currently available to regulators in many advanced jurisdictions. Staff use these tools to the fullest to target their supervisory interventions. Furthermore, analysis at a system wide-level by the BI complements microprudential supervision and helps in the identification of risk arising from the securities market.

[...]

47. Arrangements for offsite supervision need to be complemented by additional onsite inspections to make the system more effective. While the robustness and sophistication of offsite monitoring allow targeted use of onsite inspections, onsite work remains a key tool to identify weaknesses in conduct that cannot easily be detected via reporting. The same applies to operational risk, and more generally to poor governance, internal controls, and risk management systems.

48. Enforcement should also be strengthened. Remedial actions are a necessary component of any enforcement program, but they are not sufficient. Stronger fines should be a complement to remedial action. To this end, it is critical that sanctions may also be imposed on legal entities and that their level be increased. Criminal sanctions, in particular imprisonment, should be used sparingly and strategically to punish the most egregious violations and send clear deterrence messages to the market. That said, it should be emphasized that this is a challenging area for regulators in both advanced and emerging economies.

49. Finally, the licensing framework should be strengthened and a few refinements to the current allocation of responsibilities between BI and Consob are encouraged. On the former, the definition of fit and proper should be expanded and the power to remove individual directors added to the toolkit. On the latter, the mission recommends that a consultation process with Consob be established for the review of applications by banks seeking to provide investment services. In addition, the current framework could benefit from a streamlining of the chosen twin peak structure, aimed at eliminating possible ambiguities or inconsistencies and strengthening the functional approach.

...

50. The IAIS assessment, based on the situation prior to the reorganization on January 1, 2013 and the transformation of ISVAP into IVASS, found an adequate regulatory framework but revealed several gaps. Although ISVAP had numerous staff, it was poorly organized, undertook relatively few inspections, and had weak internal quality control. These gaps are already being addressed by the ongoing reorganization. Valuation and capital practices are still based on the Solvency I framework and brokers are not properly supervised. However, risk management and consumer protection are strong.

51. Notwithstanding the high level of compliance with the IAIS principles, critical areas need improvement. Valuation and the use of capital are based on the Solvency I framework and need to include stronger risk sensitiveness. Further clarification of appropriate margins, parameters, and technical reserve calculation methodology is necessary to assure adequacy of technical reserves. A complete overhaul of the supervisory structure and processes, including quality controls and specialized onsite supervision is needed.

[...]

53. The use of stress testing as a supervisory tool by IVASS could be improved. IVASS’s annual industry-wide stress test has been replaced by the EIOPA stress test in the last years. The main disadvantage of this approach lies in lack of tailor-made shocks for the Italian market conditions to appropriately test resilience of the industry. Using market analysis, the individual stress tests reported by the insurance groups, and the early warning system tools currently in development, IVASS should design market-specific severe but

plausible macro scenarios and test the resilience of the sector as a whole. Reverse stress testing as a regular supervisory practice is also recommended.

Conclusions and policy implications

The aim of this research is twofold: first, providing a comprehensive analysis of the different institutional arrangements for financial regulation and supervision across main European countries and at EU/eurozone level, pointing out their respective advantages and disadvantages and describing their evolution over the last decades, with a focus on the impact of the recent financial crisis; second, shedding more light on the costs of supervisory authorities, by providing both cross-sectional and time series data about direct costs of supervision, and also assessing the effectiveness of supervisors' action.

As to the first objective, we highlight that: i) the recent financial crisis has shown that an optimal model of regulation and supervision does not exist; ii) the new EU/eurozone level of regulation and supervision adds further complexity to the mix of different national arrangements already in place. In particular, the new ECB's supervisory powers on the banking sector could not only create conflicts between different objectives pursued by the European Central Bank, but might also lead to inter-agency conflicts as concerns the potential trade-off between stability (ECB) and transparency (ESMA). There is room to rationalize and simplify the current institutional framework. In particular, we believe that the adoption of a real twin-peak model would effectively reform the European institutional arrangements on financial supervision, by addressing the issues associated with ESMA's limited enforcement power, contributing to the creation of a level playing field and reducing the possibility to reap competitive advantages through regulatory and supervisory arbitrage.

With regard to the costs of financial supervision, our empirical analysis of direct costs shows some interesting evidence. Overall, authorities' size and costs have experienced an increasing trend over the last years, also as a response to the regulatory and supervisory failures highlighted by the financial turmoil. Since supervisors are typically funded by the supervised entities, a pro-cyclicality issue might emerge: the increase in the cost of supervision might translate into higher costs for the industry in a post-crisis environment, exactly when supervised institutions are more fragile. Though comparisons between authorities should be carefully handled, it seems that: i) the variance across supervisors of the cost measures adopted in this research is quite significant and also persistent over time, signaling some form of structural differences, also across countries (different taxation rates and pension and social contributions rates, as well as national cultural factors could help to explain these differences); ii) larger authorities – or single regulators – are not necessarily those with higher per capita cost of staff.

Moving to the discussion on the benefits of financial supervision, literature dealing with the analysis of financial supervisors' performance and effectiveness usually distinguishes between hard and soft indicators, on the one hand, and between effort and effect indicators, on the other hand. Within the category of the effect indicators, by adopting an approach based on "output" measures, the effectiveness of financial supervision has been investigated by comparing data concerning inspections, investigations and fines at securities market agencies of Italy, France, Spain and UK (namely Consob, AMF, CNMV and FCA). Output indicators give only partial information because they do not explain whether financial institutions are actually making their behavior more consistent with rules and should be analyzed together with outcome indicators. Nevertheless, being aware of these limits, also in light of the results of the direct costs analysis, a very preliminary consideration about the effectiveness of financial supervision can be provided. Focusing on the above mentioned authorities in charge of supervision on securities markets and entrusted with the goals of transparency and conduct of business, it seems that the higher direct costs – especially the per capita cost of staff – do not correspond to a higher effectiveness of supervisory action.

Some final considerations appear extremely relevant to us from a policy perspective: on the one hand, we emphasize the need for a higher level of disclosure and the opportunity to set comparable reporting standards at financial authorities (including central banks involved in supervision); on the other hand, we regard this study as a starting point for a comprehensive analysis of the current financial regulatory and supervisory systems and their short- and medium-term evolution. As to the first point, the evidence provided by this study cannot be considered conclusive because, despite our efforts to make data as consistent as possible, our results suffer from a significant lack of consistency in data availability, format and reporting. Not all supervisors provide useful and necessary information to assess the cost and effectiveness of their activity. In particular, central banks and supervisory departments housed within ministries should be required to make public segmental financial reporting for supervision. Furthermore, since financial authorities do not follow a standardized format, there is a huge heterogeneity in data provision and reporting across different countries. Therefore, efforts at both national and international level are required not only to increase the degree of disclosure but also to make the reporting systems more homogeneous. That would allow to implement more comprehensive cost analyses, better performance measurement and management systems, whose relevance cannot be understated by both financial authorities and stakeholders, and to strengthen comparison between different authorities.

In terms of a wider analysis of the current and future shape of financial regulation and supervision in Europe, we highlight that recent changes in the institutional arrangements entail deep cultural changes and require an overall assessment and comparison of different models, approaches and experiences. Regulatory and supervisory costs, with particular regard to compliance costs, are expected to significantly increase in the near future, especially for smaller supervised entities (for example, because they cannot reap economies of scale). Furthermore, the complexity of the institutional structures and the fragmentation of financial supervision are likely to be particularly burdensome for large European and global cross-border financial institutions, which have to deal with a huge number of supervisors in different jurisdictions. This would cast some doubts about the effectiveness of the strategy underlying the complex set of reforms coming into force. From this perspective, this research can foster a debate between regulators, supervisors and the financial industry in order to actually share the rationales and objectives of these reforms, to address the issues associated with the cost of the new set of rules and make sure that a concrete increase in the effectiveness of financial regulation and supervision is consistently pursued.

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