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NETHERLANDS SCIENTIFIC COUNCIL FOR GOVERNMENT POLICY

KEY CHALLENGES FOR FINANCIAL SUPERVISION AFTER THE CRISIS

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WEBPUBLICATIONS 71

The Hague, June 2013

The Web publications series comprises studies carried out as part of the activities of the WRR. Responsibility for the content and views expressed rests with the authors. A list of all Web publications can be found on the WRR website (**www.wrr.nl**).

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1 INTRODUCTION

The financial crisis exposed serious shortcomings in existing global, European and national regulatory and supervisory frameworks for the financial system. Although most attention was paid to regulatory flaws, the failure to prevent a near collapse of the financial system also triggered a global rethink of what constitutes good financial supervision. Several key principles underlying supervision – such as a high degree of trust in market participants' ability to manage risks combined with a widespread belief that safeguarding the health of individual firms would guarantee system stability, among other things – and a general tendency towards light-touch supervision, were strongly criticised (cf. FSA 2009; De Larosière 2009; Commissie De Wit 2010).

As will be discussed in more detail in Chapter 2, it became clear that supervising financial markets has over recent decades become increasingly complicated. This is due firstly to the increased complexity of financial markets, firms and products. Financial firms are increasingly active globally, and their business has become ever more intricate as trade in highly complex products has expanded significantly. Many firms have also expanded in size and scope, being active in multiple business domains and in many different jurisdictions. Secondly, financial markets are highly dynamic, as financial market participants respond quickly to altered circumstances, such as innovations in information and communication technologies, reformed financial market regulation and changing business models. Regulation and supervision often lag behind developments and innovations at supervised institutions. Thirdly, financial markets are regulated and influenced by many different actors (both public and private, operating at the international and national level). All these factors make financial supervision a demanding and challenging endeavour.

This paper argues that these circumstances necessitate a different perspective on the role and scope of financial supervision. Financial stability is determined by a wide range of actors and factors. Although supervisors play a key role in ensuring financial stability, they have incomplete control over outcomes in this area, as they cannot prevent all the problems of financial institutions and markets. In effect, public and political expectations of what financial supervision can achieve need to be moderated. However, supervisors do play a key role in ensuring financial stability. If the financial supervisor becomes more proactive and adaptive and has an adequate degree of independence and discretion – while being accountable and transparent to the public and parliament – it will be in the best position to play this crucial role. Adopting this proactive and adaptive stance will be a challenging task for financial supervisors. The main goal of this paper is to identify the future challenges, dilemmas or tensions for financial supervision and its governance.

As argued in Chapter 3, it should be accepted that ensuring compliance with existing rules and norms is *crucial* but not *sufficient* to contribute to financial market stability. This implies that supervisors have to go beyond ensuring firms' compliance with existing rules, and are given the mandate to do this by the legislative and executive branch of government. As financial markets constantly evolve and adapt, supervisors should be as vigilant as possible in order to signal and articulate new threats to financial stability, and communicate them (as long as this is not counterproductive) to the supervised firms and to the policymaking authorities. Chapter 4 argues that supervisors also need to broaden their scope, focusing on system stability (a macro-prudential orientation) and using new, more forward-looking indicators (such as the firm's business model and culture). Finally, Chapter 5 argues that the supervisors' increased room for manoeuvre will also increase demands on their methods to ensure accountability. Supervisors should put more effort into being transparent about the effects as well as the limitations of supervision, in order to maintain public and political support. Chapter 6 summarises the main arguments and recaps the most pertinent challenges associated with future transformations of financial supervision and its governance as discussed in the preceding chapters.

This paper focuses on financial supervision, and as such does not cover financial market regulation. It mainly discusses prudential supervision and in that sense does not address the supervision of business conduct. The paper focuses on banking supervision in particular, although financial prudential supervision also encompasses the supervision of pension funds, insurance companies, and other financial firms. Of course, where appropriate, questions relating to the supervision of other financial firms will be addressed. Finally, specific attention is paid to questions relating to the Dutch supervisory architecture.

2 DEVELOPMENTS IN FINANCIAL MARKETS AND SUPERVISION

This chapter first describes some important developments in the financial system in the Netherlands (section 2.1). It then goes on to discuss how financial supervision has been reorganised at the national and international level in response to these developments and in reaction to the financial crisis (section 2.2). Section 2.3 argues that financial market supervisors are confronted with (1) a greater degree of dependence on other actors (public and private); (2) fundamental uncertainty about financial market developments; and (3) a highly dynamic and adaptable sector. Chapters 3, 4 and 5 then discuss the future challenges and opportunities for financial market supervisors given these circumstances.

2.1 Sector trends

The Dutch financial sector – like the financial sectors in all OECD countries – has gone through a major transformation in the past few decades. This transformation can be briefly outlined by focusing on five, interrelated developments: (1) a great expansion of the financial system; (2) sector consolidation and concentration; (3) a significant change in the nature of banking; (4) an expansion of cross-border activity and trade; and (5) the increased importance of new financial products and actors.

First, the size of the banking sector has expanded significantly in recent decades. In the Netherlands, as in many advanced economies, total financial assets grew substantially relative to GDP (see table 1.1). This meant that the functioning of the real economy became increasingly dependent on the stability of the financial sector. As shown in table 1.1, the size of the banking sector declined after the crisis to approximately 469 per cent of GDP in 2011.

Table 1.1 Growth of financial sector 1995-2011.
Consolidated assets of commercial banks as a percentage of GDP

	US	Germany	UK	Spain	Netherlands	Switzerland
1995	56%	214%	241%	196%	184%	354%
2000	61%	297%	289%	203%	390%	503%
2007	77%	313%	451%	304%	591%	664%
2011	82%	311%	480%	365%	469%	494%

Source: Houben (2013)

Second, the financial sector has been characterised by consolidation and increased concentration. From the 1990s onwards, especially, banks merged with other banks (e.g. ABN and Amro in 1991) or with insurance companies (e.g. SNS and Reaal) (cf. DNB 2010a: 35-36).[1] Consolidation led to concentration: the sector today is dominated by a few systemically important banks. Based on balance sheet totals, five banks accounted for 85 per cent of the Dutch banking sector in 2008, having grown from approximately 73 per cent in 1990. In fact, this domination is increasing. In 2012, the market share of the top three banks in the Dutch mortgage market was 84 per cent, against 78 per cent in 2003 (Jansen et al. 2013).

Third, there has been a significant change in the nature of banking (cf. Turner 2010; Liikanen 2012). For the large financial firms, in particular, the relative weight of banking activities has shifted away from traditional activities such as “deposit taking, lending, securities underwriting and trust services towards dealer and market-making activities, brokerage services, and own account trading” (Liikanen 2012: 3). Banks have also become increasingly active on the mortgage market, with home mortgages accounting for an increasing share of banks’ balance sheets. However, in the Netherlands, the growth of the deposit base did not keep pace with the extensive mortgage lending over the years. This resulted in a ‘retail funding gap’. This meant that banks increasingly had to rely on funding from the wholesale financial markets, making the Dutch banking sector vulnerable to unfavourable conditions on those markets (Jansen et al. 2013).

Fourth, there has been an expansion of cross-border activity and trade. The internationalisation of the Dutch financial sector was mainly the result of cross-border acquisitions and the establishment of foreign branches (DNB 2010a: 36). Moreover, financial firms became increasingly active in trade with foreign firms. As a consequence of the financial crisis and national regulatory responses, we have seen a refocusing of banks’ activities towards their home markets across Europe. Whereas the foreign business activities of Dutch banks amounted to at least 30 percent of their consolidated balance sheets in the years before the crisis, today it is less than 15 percent.[2] To some degree, this trend is still continuing today.

Fifth, the last few decades have seen a remarkable rise in the trade in new financial products and the emergence of new financial actors (cf. Commissie De Wit 2010; DNB 2010a: 90). In line with the international trend, Dutch financial firms became more and more active in the trade in new financial products such as credit derivatives, products that were often not traded on securities exchanges (known as ‘over-the-counter’ credit derivatives). In addition, banks increasingly securitised the loans on their balance sheets, selling these products to other financial actors in an attempt to diversify risks and free up capital to provide more loans. Financial firms also acquired these financial products from other, foreign, financial firms, thereby exposing them to risks on foreign markets (especially US mortgage markets). Apart from product innovations, the financial sector has also seen the emergence of relatively new financial actors, such as hedge funds, money market funds and private equity funds. In the run-up to the crisis, these actors operated largely outside the regulatory perimeter. After the crisis, regulators sought to broaden the perimeter of financial supervision to encompass credit rating agencies, hedge funds and entities performing 'bank-like' functions ('shadow banks') that were hitherto not subject to regulation and supervision (see section 2.2).

In sum, "(f)inancial sector growth thus took place with greater interconnectedness, within institutions, between institutions, cross-sector and cross-border" (Houben 2013: 219). It should be emphasised that these changes were caused by a plethora of developments, such as macroeconomic circumstances, innovations in information and communication technologies, modified financial market regulation and adapting business models. The result has been the emergence of a highly dynamic and complex sector, in which market actors are constantly affected by – and have to adapt to – changing market developments and modified regulations and supervisory practices.

As a consequence of the crisis, banks are having to increase their buffers in an environment of slow economic growth and are confronted with a tightening of regulation. In addition, banks are struggling with low public and political approval. Restoring confidence in the industry may be a lengthy process. The financial crisis has cast doubt on the sustainability of some business models. In particular, business models that exploit the generous tax treatment of household mortgage debt are being put to the test by changing political views towards this treatment and the high household indebtedness that results from it (see Chapter 4). The sustainability of a banking structure that is dominated by systemically important and cross-border operating banks is challenged by two lessons from the current crisis: (1) too-big-to-fail issues and the absence of effective instruments for resolution have caused heavy taxpayer involvement during the crisis, further entangling countries' public finances with the health of the banking sector; and (2) the framework for cross-border supervision and resolution has proven to be seriously flawed. As a consequence, a large, cross-border banking industry poses additional risks to financial stability in the absence of effective cross-border supervision and resolution (see Chapter 3).

2.2 Trends in supervision

In response to the financial market developments described above, financial market regulation and supervision have also seen a significant change in recent decades. Focusing on financial market supervision in the past decade, supervision in the Netherlands was reorganised along functional lines, in response to the growing interconnectedness between financial firms and the blurring of the boundaries between these institutions. In the so-called

Twin Peaks model, De Nederlandsche Bank (DNB) assumed responsibility for prudential regulation, focusing on the health of financial institutions and on financial sector stability, while the Netherlands Authority for the Financial Markets (Autoriteit Financiële Markten - AFM) was made responsible for business conduct supervision. In pursuing its mandate, DNB predominantly focused on safeguarding the financial health of individual financial institutions (banks, insurance companies and pension funds).

In response to the increased complexity of financial firms, financial market supervision also increasingly relied on risk management strategies. This entailed both an increased reliance by supervisors on the risk management strategies employed by the individual financial firms, and a shift towards risk-based supervision of the financial supervisors themselves (cf. DNB 2010a: 44-48).[3] Moreover, in response to the dynamic nature of the financial sector, financial supervisors increasingly relied on principle-based regulation, giving firms increased freedom to develop their own strategies in order to comply with the rules (Black 2011).

The increased internationalisation of financial markets was to a significant degree the result of modified regulation at national, European and global level. Of crucial importance was the desire to complete the single European market for financial services from the 1990s onwards (DNB 2010a: 35). As a central component of this plan, the single banking passport regime gave EU banks that were licensed by another EU Member State the freedom to set up branches in any EU country without having to apply for a new licence (Ottow 2011). Supervision in the EU was based on the 'home country control model': the 'home supervisor' had prime responsibility for supervising these banks, including their foreign branches; the 'host supervisor' was only entitled to supervise the branches' liquidity (ibid.). In the run-up to the crisis, international supervision of cross-border banks was not particularly well developed, although national supervisors convened in the Lamfalussy committees and in so-called supervisory colleges to share information – on a voluntary basis – about the conduct of financial firms and supervisory practices (ibid.).[4]

The financial crisis demonstrated shortcomings in the existing global, European and Dutch regulatory and supervisory frameworks. As regards regulation, key problems that were identified were inadequate capital and liquidity requirements, the procyclicality of certain rules (e.g. capital requirements, fair-value accounting, the use of credit ratings) and the absence of regulation for certain financial actors (cf. FSA 2009; De Larosière 2009). In response, regulations governing the financial sector were tightened along many dimensions. Basel III, representing a tightening of capital and liquidity requirements for banks, is expected to enter into force in Europe in 2014 through Capital Requirements Directive/

Regulation IV (CRD/CRR IV). Also, tighter regulation covers areas as diverse as securitisation, remuneration policies, resolution plans and counterparty credit risk. In addition, regulators have sought to broaden the perimeter of financial supervision, to encompass credit rating agencies and hedge funds (cf. De Haan and Ambtenbrink 2012a, b; Quaglia 2011).

Whereas regulatory developments have been at the centre of attention, changes in financial supervision are less well documented. The failure to prevent a near collapse of the financial system triggered a rethink of what constitutes good supervision (Vinals and Fiechter 2010; cf. Hilbers and Rijsbergen 2013).

First, the shift towards principle-based supervision came under scrutiny, as many observers argued that in practice this implied 'light-touch supervision'. However, it is far from clear that a return to more 'rule-based supervision' is the answer in this respect (Black 2011). Although at the regulatory level there has been a tendency to develop ever more detailed rules to ensure compliance (Haldane 2012), the case for a sufficient degree of principle-based regulation in a dynamic and complex sector is strong. Although rules do not require continuous justification or explicit decisions, circumvention of rules becomes easier over time (Borio 2011a: 11). This implies that in the future, supervisors will need to strike a delicate balance between rule-based and principle-based supervision (see Chapter 3).

Second, the institutional framework of supervision was challenged, particularly concerning the absence of a well-developed European framework (Ottow 2011). In response, following the recommendations of the De Larosière report (2009), 2011 saw the birth of the European System of Financial Supervision (ESFS). An important feature of the ESFS is the creation of three European Supervisory Agencies – replacing the Lamfalussy committees – with new tasks, powers and instruments to harmonise supervisory practices throughout the EU single market (ibid.). Another important element of the ESFS is the creation of the European Systemic Risk Board (ESRB), which is responsible for macro-prudential supervision of the EU financial system. A related development in this regard, mainly as a response to the euro area debt crisis, is the development of a European Banking Union, bringing elements of banking supervision, resolution and deposit guarantee schemes to the European level (Council of the European Union 2012; Ferran and Babis 2013; see Chapter 3).[5]

Third, the idea was challenged that focusing on individual firms' compliance with existing rules – and a focus on capital and liquidity – was broadly sufficient to guarantee financial market stability. In response, one lesson learned was that supervision needs to become more forward-looking, looking not only at financial indicators that are to some extent backwardlooking by nature, but also delving into the business model, culture and governance of an institution (Hilbers 2011). Flawed business models are powerful indicators of financial trouble further down the road. The supervisor needs to have a thorough understanding of the way in which a financial firm earns its money and needs to form an opinion on its long-term sustainability given external, sector and regulatory trends. Similarly, during the crisis, financial firms' culture and governance have proven to be of crucial importance to their long-term viability. This requires supervisors to go beyond the numbers, making expert judgment more important and also from time to time being challenged in court, as the regulatory framework in these areas is not yet well developed (see Chapter 4).

Another lesson learned in this respect was that financial institutions are far more interconnected with each other and with the real economy than had previously been thought. In response, central banks and supervisors have been developing their macro-prudential analysis capacity, in order to better understand this interconnectedness and to scan the horizon for macroeconomic and systemic risks. Also, macro-prudential instruments are being developed to address these risks at an early stage, the most important being the countercyclical capital buffer that has been agreed in the context of Basel III (see Chapter 4).

Finally, the crisis demonstrated an increased demand for accountability and transparency on the part of independent financial supervisors. Supervisors themselves have come to realise that being more accountable and open can actually help them to improve their supervision. The current information society, where news travels at the speed of light, even when it is false, forces supervisors to be more open in order to try to steer the information flow. The continuing challenge here is to be as transparent as possible whilst complying with statutory secrecy obligations (see Chapter 5).

2.3 Key challenges for financial supervision

Section 2.1 identified a number of trends in the financial sector in recent decades. Financial firms have become more complex, more internationally oriented, and thereby more interconnected with global financial markets. The financial sector has grown substantially in size relative to GDP, the sector has seen consolidation and concentration, leading to the emergence of systemically important financial firms. Although the financial crisis triggered a partial reversal of these trends, it is not likely that we will see a completely different financial sector developing in the near future. The financial sector will continue to be characterised by three interwoven key features: it is dynamic, complex and highly adaptive.

This presents a very challenging environment in which prudential supervisors have to fulfil their mandate. A first challenge for supervisors is that financial stability depends on a wide variety of actors (public and private, operating at the international and national level) and circumstances (macroeconomic developments, public trust in the financial sector, financial market sentiments, etc.). This implies that financial supervisors cannot by themselves guarantee financial stability. A second challenge facing supervisors is that they are confronted with fundamental uncertainty as to future market developments (Houben 2013). Supervisors will therefore – like market participants – have only limited ability to foresee future developments that might affect financial market stability. A third challenge is that the dynamic and adaptive nature of the financial sector implies that (supervisory) regulation often lags behind developments and innovations at supervised institutions, in part because formulating rules is a time-consuming process, particularly at the international level.

At the same time, however, the task of the prudential supervisor is to contribute to financial market stability. This paper argues that if financial supervisors are adaptive and have an adequate degree of independence and discretion – while being accountable and transparent – they can use their unique position to play this crucial role successfully. The following chapters will discuss which challenges supervisors face in fulfilling this role.

3 THE GOVERNANCE OF FINANCIAL SUPERVISION

This chapter discusses several challenges relating to the future positioning of financial supervision in the European and national regulatory architecture. It will first argue that the dynamic and complex nature of the financial sector warrants an adaptable financial supervisory system, in which the supervisor is outcome-focused and has an adequate degree of discretion. Moreover, it demands a vigilant and proactive supervisor who signals, articulates and responds to financial sector developments that pose a potential threat to financial stability, and who communicates these findings to relevant policymaking authorities in order to improve financial regulation (section 3.1). Second, this chapter argues that this requires an adequate degree of independence for financial supervisors from policymaking authorities and financial firms, in order to ensure an unbiased focus on financial stability concerns (section 3.2).

Finally, the chapter addresses the Europeanisation of financial regulation and supervision, identifying potential positive and negative aspects of the harmonisation of financial regulation and the centralisation of certain supervisory powers. It argues that this trend potentially reduces the possibility of regulatory competition and a related race to the bottom. However, an overly rigid regulatory and supervisory architecture might also threaten the emergence of an adaptive and dynamic supervisory system, in which supervisors have an appropriate degree of discretion to respond to emerging threats to financial stability (section 3.3).

3.1 The relationship between supervision and regulation

The effectiveness of supervision largely depends on the conditions in which the supervisor operates. A very important element is the proper functioning of other forms of supervision, both external and internal. Involvement of the board, including both executive and non-executive directors, is an obvious example of internal supervision, as are internal control bodies such as audit, risk and compliance departments. The external auditor and rating agencies play a crucial role in providing a quantitative – and increasingly a qualitative – challenge to the financial institution's representation of itself to external parties. The challenge for supervisors is to strike the right chords with those stakeholders that are closely involved in managing risk in financial firms. In a complex and dynamic environment, it is clear that supervisors need to rely heavily on the activities and expertise of these internal and external parties. This implies a degree of dependence by the prudential supervisor on parties it cannot control per se. However, as the crisis also challenged the adequacy of supervision of those internal and external parties, supervisors will have to assess to what extent they can rely on the work of those parties.

Another very important element is the quality of the supervisory instruments provided by the legal framework. The financial crisis made clear that – among other things – the supervisory instruments as currently laid down in global, European or national regulations were not up to par in certain areas. As emphasised in the previous chapter, supervisory regulations often lag behind developments and innovations at supervised institutions, partly because developing regulations is often a time-consuming process, and partly because financial markets are very dynamic. Another factor is that regulations are the outcome of negotiations in which both national interests and the interests of the sector are at play. Combined with pressure on national supervisors to refrain from imposing additional requirements on top of (sometimes inadequate) international standards ('gold plating'), this can restrict supervisors' ability to respond quickly and effectively to risks.

Supervisors are often portrayed as actors at the end of the policymaking process, merely checking compliance with rules developed within the political process. Such a compliance-based view of financial supervision is difficult to square with the complexity and adaptive nature of the financial sector. It wrongly assumes that compliance with developed rules will by itself guarantee the attainment of the policy objective (i.e. financial stability) and that the financial supervisor will succeed in ensuring full compliance with all rules. Given the dynamic nature of the financial sector, it is important that supervisors are able to adapt their supervisory strategy quickly to new market developments (Black 2012a). This brings to the fore the question of how supervision and regulation relate to one another. Three specific issues deserve further attention in this regard. The first is how to supervise effectively based on open norms – a key element of principle-based regulation. The second is how supervisors can be outcome-focused without overstepping their supervisory mandate. The third is how supervisors can contribute to the quality of financial policy and supervisory regulations.

3.1.1 The use of open norms

Financial sector regulation contains many open norms. Examples in Dutch law are 'control and integrity of business operations' and the prudent person principle. These elements of principle-based regulation fit the complexity and diversity of the financial sector which makes it impossible to capture everything in rules. Open norms also allow scope to respond to changes in the financial sector without the need to change legislation. Finally, they encourage compliance with the spirit rather than the letter of the law (De Vries 2013).

Working with open norms raises several challenges for supervisors. One such challenge is how to provide guidance on desirable (acceptable) outcomes without ending up with detailed rules after all. While it is difficult to disagree with the idea of open norms given the advantages mentioned above, it does place greater demands on both the sector and the supervisor. Not surprisingly, financial institutions – especially smaller institutions – often ask for more detailed guidance; so do supervisory inspectors, in order to ensure the consistent treatment of institutions (Black 2011). Second, there is a tension between principle-based regulation and the tendency for society to become increasingly litigious. In order not to be successfully challenged in court, supervisors must provide ex ante clarity on what they expect from financial institutions, without mimicking a compliance-based set of rules. A third complication is that the financial crisis has reduced the level of trust in the relationships between supervisors and supervised institutions. Given that trust is essential for effective principle-based regulation, this raises the question of whether principle-based regulation can withstand this blow. The reduced level of trust may also explain why financial sector regulators are currently less inclined to engage in horizontal supervision or allow a large degree of self-regulation.[6] Given lessons learned from the financial crisis, this should come as no surprise. Financial firms' ability to adequately manage the risks they were exposed to, proved to be greatly overestimated, both by firms themselves as well as by regulators and supervisors (FSA 2009).

3.1.2 Outcome-focused

A second issue at the intersection of regulation and supervision is how to be outcome-focused without overstepping the supervisory mandate. Outcome-focused supervision seeks to achieve a higher goal, not just compliance with the rules. As Sparrow (2000) points out, not everything that is harmful is illegal, and vice versa. Examples in the context of the Dutch financial sector are Ice save and DSB Bank, two small banks that failed in 2008-2009. Whereas the former had an overly risky business model, the latter was selling products that were not in the best interests of its customers. Outcome-focused supervisors endeavour to end harmful situations. At the same time, they need to stay within the limits set by the law, i.e. accept that the courts will test (non-)compliance with the law rather than harmful behaviour. An outcome-oriented supervisory approach implies that a supervisor will have to accept that its decisions may be overruled in court. The recent limitation of liability makes it easier for DNB not to err on the side of caution all of the time.

3.1.3 Contribution to regulation

A third issue is how the supervisor can adequately contribute to the quality of financial policy and supervisory regulations. Financial supervisors are in a unique position to gain a view of financial sector developments. The supervisor will therefore need to communicate actively with relevant policymakers (at the national and international level) and other supervisors about which potentially harmful developments are emerging and whether existing policy is adequate to deal with these threats. Moreover, it will also have to assess what (unintended) consequences existing regulations may have for market developments (De Grauwe 2008; Nouy 2013). For instance, it was widely acknowledged that the Basel rules contributed to the displacement of financial market activity outside the supervisory purview. A vigilant and alert supervisor will communicate these developments to the relevant policymaking authorities, in order to contribute to the continuous improvement and modification of financial market rules.

It is thus important to establish a feedback mechanism to the legislative part of government. A good supervisor will inform the government about relevant financial market developments and how these relate to existing rules and regulations. It will ask for rules that promote the achievement of its goals. It will do this not only through informal contacts but also in a more formal and transparent manner. In the Netherlands, DNB and the business conduct supervisor AFM have introduced an annual legislative letter (*'wetgevingsbrief'*), which is sent to the Minister of Finance as well as the Minister of Social Affairs and Employment to signal shortcomings in the law.[7] A more informal – but well-established – procedure is for the supervisor to contribute to the preparation of new legislation, in order to improve the quality of the rules in terms of whether compliance with these rules can effectively be monitored.

3.2 Independence of financial supervision

During the last two decades, many countries have granted their monetary authorities greater independence. It is widely believed that central banks will otherwise give in to pressure from politicians who may be motivated by short-term electoral considerations or may assign high value to short-term economic expansions whilst discounting the longer-term inflationary consequences of expansionist policies. There is strong evidence of a negative causal relationship between central bank independence and inflation (Klomp and De Haan 2010).

There is a similar, but much smaller line of research on the independence of financial supervisors. Supervisors should be sufficiently independent of political interference. According to Quintyn and Taylor (2003), in almost all the systemic financial sector crises of the 1990s, political interference in the supervisory process, leading to regulatory forbearance, was a major contributory factor in the weakening of banks in the run-up to the crisis. Supervisors should also be independent of the financial sector they are supposed to supervise. Several authors have argued that financial supervisors are prone to capture by the financial sector (cf. Barth et al. 2012). This section discusses the relative importance of the independence of financial supervisors. It identifies several positive aspects of supervisory independence, as well as some potential pitfalls.

Quintyn and Taylor (2003) distinguish four dimensions of independence: (1) regulatory; (2) supervisory; (3) institutional; and (4) budgetary independence. *Regulatory independence* in the financial sector means that regulators have wide autonomy in setting prudential regulations within the confines of the law. The extent of regulatory independence depends on the extent to which existing laws on financial supervision leave scope for regulatory discretion (cf. Black 2012a). *Supervisory (operational) independence* ensures that there is no interference with the day-to-day work of supervisors, either by politicians or by the industry. *Institutional independence* refers to (1) clear rules governing the appointment and dismissal of supervisors; (2) a multimember commission structure of governance; and (3) transparency, enabling both the public and the industry to scrutinise regulatory decisions. Finally, *budgetary independence* is determined by the role of the executive or the legislative branch in determining the supervisory agency's budget and how it is used. If funding comes from the government budget, the supervisory budget should be proposed and justified by the agency itself. If funding comes from industry fees, they should be determined jointly by the agency and the government.[8]

3.2.1 Independence from political interference

There are several reasons why shielding supervisors from political interference may be beneficial for maintaining financial stability. Independence may help to overcome an *inaction bias*. As pointed out by Quintyn and Taylor (2003), the incentives for politicians to rescue failing banks are similar to those for inaction in the face of inflation. The decision to close a failing bank is usually unpopular, as costs must be incurred in the short term in order to make long-term gains, making regulatory forbearance (postponement in the near term) an attractive option.[9] Politicians eager to avoid a necessary closure may therefore be tempted to pressurise supervisors to organise a bailout or to excuse the failing bank from regulatory requirements, even at the risk of exacerbating the problem and increasing the long-term costs of resolving it. Another explanation for inaction bias is uncertainty, which creates a tendency for policymakers to prefer to make a type-1 mistake (in other words, incorrectly assuming that things will work out well) than a type-2 mistake (incorrectly assuming that things will go wrong). A supervisor that is captured by political interests associated with weak financial institutions may not be able to enforce strong and timely prudential action (Čihák 2007).

Another reason may be that there are in fact multiple values and interests at stake when it comes to financial sector regulation. Politicians and/or policymakers (whether or not influenced by sector interests) may want to boost the position of the national financial industry, pressuring the supervisor to adopt a lenient approach towards national financial firms (cf. Pagliari 2012). Establishing a clear mandate (i.e. contributing to financial stability) and explicitly assigning policy responsibility to an independent authority will create a strong impulse to actively seek to achieve a stated objective, especially when this is matched by adequate accountability and transparency measures. Essentially, this argument in favour of supervisory independence, linked to a clear mandate, is comparable to that relating to monetary decisions. The independent status is important as a means of ensuring that the authority is at all times *able* to take the required action. When coupled with adequate accountability and transparency measures, an independent status will also make it more likely that the supervisor actually takes action when necessary. Agency independence thus embodies an important concern, namely the need for accountability. An independent agency might pursue an agenda of its own, going against the wishes of the political majority. Although such fears appear to be exaggerated, they nevertheless demonstrate the need for proper forms of accountability (see Chapter 5).

However, as pointed out in the previous chapter, financial stability is determined by a wide range of actors and factors. The relationship between supervisory independence and financial stability may therefore not be a straightforward one, as supervisors have incomplete control over outcomes in the area of financial stability (cf. Čihák 2007). It is therefore not surprising that there is little empirical evidence suggesting that supervisory independence by itself greatly contributes to financial stability.[10]

3.2.2 Independence from industry pressures

Apart from independence from government, supervisors should be independent from industry. As Stigler (1971) pointed out in a seminal article, supervisory agencies tend to respond to the wishes of the best-organised interest groups (this also applies to regulatory agencies). When supervisors are free from political control, the risk of 'capture' by other groups — in particular the industry they supervise — grows. Agencies that suffer from such capture come to identify industry interests (or even the interests of individual firms) with the public interest. Industry capture can also undermine the effectiveness of supervision just as political pressure can. Supervisors may, for example, pursue strategies designed to minimise industry costs rather than strike an appropriate balance between those costs and public benefits. They may also apply rules inconsistently and exempt individual firms from regulatory requirements.

According to Barth et al. (2012: 15),

> "the financial services industry unduly influences financial policy, whether it is through campaign contributions, the close professional and personal connections between regulators and financiers, ideological capture, or the conforming behavioural influences of the home crowd - the financial services industry - on regulators" (Barth et al. 2012: 15).

There is indeed evidence that the financial sector – and especially large financial institutions – was quite successful in the run-up to the financial crisis in influencing financial market regulation. Basel II, for instance, was influenced by financial industry lobbying activities, which resulted in an accord that was actually weaker than its predecessor and benefited the major financial institutions (Claessens et al. 2008). Other domains of EU financial market regulation were also subject to significant financial industry influence (cf. Mügge 2010; see Commissie De Wit (2010) for industry influence on Dutch financial regulation). However, evidence in recent years has been mixed, as the weakening of the industry has impacted on the effectiveness of its opposition to rule-makers.

Barth et al. (2012) suggest a subtle way in which supervisors may be 'captured', namely the home bias. Referees in several types of sport are found to be biased in favour of the home team, and this may be true for supervisors as well. As Barth et al. put it:

> "For regulatory officials, the 'home crowd' *is* the financial services industry. People from the financial services industry 'surround' regulatory officials; they meet with regulators daily. It is the financiers who will immediately jeer and taunt officials if they do not like their 'calls'. Since regulators might have recently worked for the financial services industry and might soon be going to work there, it would be natural for regulators to identify fairly closely with the financial services 'community' that envelops them." (Barth et al 2012: 8)

This type of capture may best be prevented by establishing a clear mandate allowing the supervisor only to pursue the public interest of financial stability. Mandates which suggest that supervisors also ought to promote the interests of the financial sector may adversely affect financial supervisors' incentives (Pagliari 2012), and may make them more prone to 'home-biased' capture. This also implies that impartiality on the part of the regulator is at least as important as formal independence.

Another subtle way in which 'capture' may operate in the financial sector is caused directly by the complexity and dynamic nature of the financial sector (Pagliari 2012). As the financial industry is constantly developing new, often complicated financial products and/or risk management strategies, it is difficult for the supervisor to assess the potential benefits and threats of these innovations. In these circumstances, the supervisor is highly dependent on the ways in which financial market actors legitimise their business practices. There is then a possibility that 'cognitive capture' can occur, in which the supervisor steers towards the positive framing by the industry of new market practices (ibid.).

This underscores the importance of ensuring sufficient expertise on the part of the supervisor, to enable it to form an independent judgement of the benefits and potential dangers of new financial market practices. It will also require a more independent positioning of the supervisor vis-à-vis financial market actors, particularly through the application of the precautionary principle (Houben 2013). This involves a reversal of the 'burden of proof': rather than supervisors having to prove the riskiness of new practices or instruments before taking measures, the supervisor will now only refrain from action when supervised institutions demonstrate that the risk is not significant, of course taking into account other principles such as proportionality and cost-effectiveness (ibid.).

3.3 Europeanisation of supervision

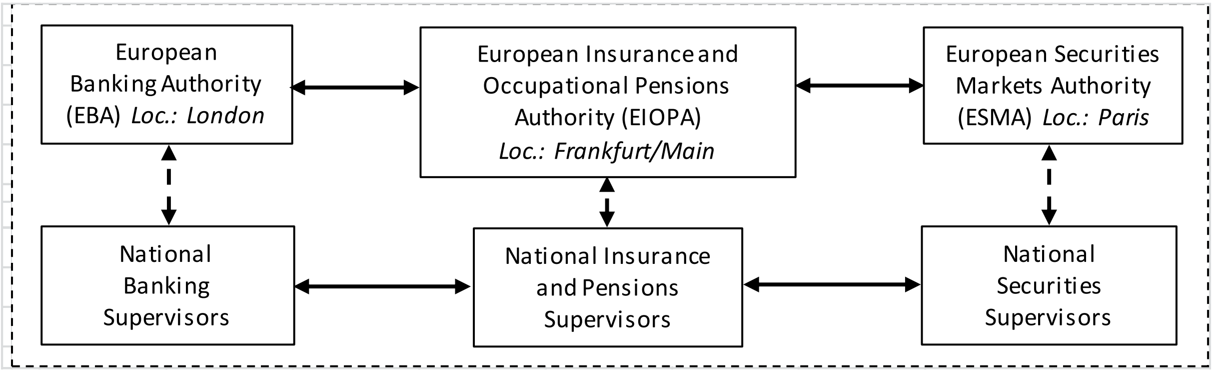
The launch of Economic and Monetary Union (EMU) in 1999 greatly boosted the cross-border activity of European financial institutions, reinforcing the need for harmonisation of regulation and supervisory practices in order to create a level playing field and prevent regulatory arbitrage. Before the crisis, harmonisation in regulation usually took the form of Directives, providing considerable flexibility for national authorities to deviate from the European minimum standards. As a corollary, under the so-called Lamfalussy structure, European cooperation between supervisors was mostly voluntary in nature. The crisis, which in some instances saw the virtual breakdown of this cooperation under pressure from national financial stability interests, gave new impetus to the cause of European harmonisation of regulation and supervision.

Two interrelated developments are relevant in this respect. The first is the attempt to further harmonise financial market rules and practices (also as regards financial supervision) in the EU. The second is the shift of certain supervisory powers from the national to the European level. This section discusses the potential benefits of these developments, as well as the potential pitfalls.

3.3.1 The harmonisation of rules

As regards the first development – the harmonisation of rules on financial market supervision – it is worth mentioning that the De Larosière report (2009) identified the inconsistent implementation of rules as the main problem in the system of EU financial regulation. The high degree of freedom for national authorities to diverge from EU rules was identified as an obstacle to the European single market and a potential threat to financial stability. In response, the key trend in the EU has been to eliminate differences in national regulatory frameworks. At the regulatory level, this trend involved the increased use of EU regulations rather than EU directives, with EU regulations being directly binding and leaving no room for national discretion ('maximum harmonisation'). At the organisational level, this involved the launch of the European System of Financial Supervision (ESFS) in 2011. An important feature of the ESFS is the creation of three European Supervisory Agencies (ESAs; see Figure 3.1). For banking, the relevant authority is the European Banking Authority (EBA).

Figure 3.1 European supervisory agencies



An important step in the elimination of differences on the regulatory front is the Capital Requirements Directive/Regulation IV (CRD/CRR IV), under which important provisions implementing the new Basel III requirements for banks are to take shape as a Regulation, being directly binding and leaving no scope for national discretion. A key aspect of the CRD/CRR IV package is the EBA's development of the Single Rulebook, consisting of the issuance of Binding Technical Standards (BTS): a lower-level regulation that provides a binding interpretation of CRD/CRR provisions. An example of an area in which the EBA could issue binding standards is the 'definition of capital', thus ensuring that the same standards apply across the EU concerning the types of instruments that qualify as high-quality capital, in order to prevent regulatory competition in determining capital adequacy ratios (cf. Enria 2011). Also, the ESAs have been given important powers in the areas of stress-testing, information-gathering and crisis management.

These developments relate to the regulatory standards that the national financial supervisors have to apply. A different development that will impact on the future work of supervisors is the forthcoming development of a Single Supervisory Handbook or Manual (cf. Enria 2011). Hitherto, harmonisation of supervisory practices was to be achieved through peer review processes and mutual learning. Now, the goal is to develop common EU procedures and processes in financial supervision.

The key future tension related to these harmonisation processes is that the elimination of national differences in rules and supervisory practices can have both positive and negative aspects. A clear benefit of harmonisation is that it creates a level playing field and limits the extent of regulatory competition. In the run-up to the crisis, national discretion was often used to adopt more lenient approaches in order to attract business to local markets and to favour national champions. Further harmonisation could limit such 'race to the bottom' practices. Moreover, it facilitates the smooth functioning of the EU single market, especially if there is an institutional framework in place to regulate and supervise financial firms with EU-wide activities (see below).

However, the elimination of national discretion could pose a challenge for financial supervisors aiming to 'err on the side of caution'. The 'maximum harmonisation' aspect of EU rules is understandable from a 'single market perspective', but from a 'financial stability perspective' this could pose difficulties in the future (cf. HM Treasury 2012). Supervisors aiming to (temporarily) impose more stringent standards on financial firms if circumstances so require (for instance to reduce systemic risk; see Chapter 4) could face certain limitations, thereby potentially hampering the fulfilment of their mandate. Another potential negative aspect is that it could make the EU regulatory and supervisory framework overly rigid, which is problematic when the dynamic nature of markets is taken into account. As Black (2012b) convincingly argues, complex adaptive systems (such as financial markets) require regulatory and supervisory systems that are adaptable and dynamic as well. The current EU trend towards complete harmonisation, although desirable from the point of view of creating a level playing field, could also introduce a regulatory system that is too rigid to be able to adapt and respond quickly to new financial market developments.[11]

3.3.2 The shift of supervisory powers to the European level

As regards the second development – the shift of direct supervisory powers to the European level – the most significant development is the creation of the European Banking Union. The euro area debt crisis brought home the drawbacks of having an Economic and Monetary Union without parallel arrangements in the area of financial supervision. The European Council reached agreement in June 2012 on the introduction of a European Banking Union. In essence, the European Banking Union comprises three mutually reinforcing elements. Firstly, the Single Supervisory Mechanism means that important powers in relation to the prudential supervision of banks will move from national supervisors to the ECB.[12] The second building-block is the development of a Single Resolution Mechanism comprising a European resolution authority and a single fund.[13] The third building-block, a European deposit guarantee scheme, may possibly be added as the final element at a later stage, as a further step in breaking the negative interaction. To that end, the harmonisation of national guarantee schemes will be a major step forward.

A first important challenge is the timing of the implementation of these measures. It is questionable whether a European supervisory mechanism can function adequately if a resolution mechanism, including funding, is not set up simultaneously (Ferran and Babis 2013). This was also emphasised in the conclusions of the European government leaders, who are seeking to implement the resolution mechanism before June 2014. A situation in which only supervision is brought up to the European level, with the resolution mechanism remaining under national competence for the time being, could give rise to conflicts of interest. For example, supervisory decisions to withdraw a bank's licence would be taken at central level, whereas the bill resulting from such decisions would have to be paid at national level. This would put pressure on the European supervisor not to pull the trigger, but instead to exercise forbearance.

A second challenge relates to the issue of the EU27 (the EU as a whole) versus EU17 (the adopters of the euro). Measures to strengthen the EU17 could undermine the integrity of the EU27 (Ferran and Babis 2013: 22). In the envisaged Single Supervisory Mechanism with the ECB at its centre there is, of course, the issue of participation by EU Member States outside the euro area. This tension has to a certain extent been resolved by giving the authorities of non-euro area Member States the option of participating in the SSM. Giving non-euro area Member States full membership and voting rights in the Supervisory Body – the body responsible for the preparation of decisions on supervisory matters – puts them on an equal footing with euro-area Member States. However, the ECB Governing Council has final responsibility, and draft decisions by the Supervisory Board therefore require formal approval by the Governing Council (Constâncio 2013). Another issue in this context relates to the distribution of responsibilities between the ECB and EU27 institutions such as the European Banking Authority and the European Systemic Risk Board (Ferran and Babis 2013: 23-29). For instance, as both the EBA and the ECB are developing supervisory manuals, "(t)he possibility of overlaps and/or conflicts between the two sets of supervisory rules cannot be excluded" (ibid.: 23). How these potential tensions will play out in the future and what consequences they will have remains to be seen, but they are clearly of importance for the future of financial supervision.

A third challenge, with crucial implications for national financial supervisors, is whether the EU will in the future move to a 'single supervisory authority' rather than a 'single supervisory mechanism' (Ferran and Babis 2013: 9). The degree of centralisation within the Single

Supervisory Mechanism will of course have implications for national supervisors. The main benefit of the centralisation of prudential supervision is that it reduces existing shortcomings in EU supervisory arrangements (for instance the dependence of 'host supervisors' on the diligent work of the 'home supervisors'). A key question will be what future role is envisaged for national financial supervisors given the increased trend towards centralisation of supervisory powers, especially as regards systemically important banks. This is particularly relevant for the Dutch financial supervisory framework, as the Dutch banking system is highly concentrated and dominated by a few systemically important financial firms.

3.4 Conclusion

As discussed in this chapter, there are several challenges relating to the future position of financial supervision in the European and national regulatory architecture. Key tensions relate to the degree to which national supervisors can exercise supervisory discretion, given existing and future (supervisory) regulations at both the national and international level. In a dynamic sector, supervisors will themselves need to be adaptive, to ensure they are able to respond quickly to newly emerging threats to the stability and integrity of the financial system. Hence, an adaptive and dynamic supervisory architecture is called for. Moreover, supervisors should make an active contribution to the regulatory process, as they hold a key position in assessing whether existing rules are producing the desired results or have counterproductive effects. This adaptive and proactive role for supervisors will require a sufficient degree of independence, both from political interference and industry interests. Independence is not guaranteed by formal institutional arrangements alone, but also requires an independent attitude and sufficient capabilities on the part of the supervisor to actually exercise unbiased supervision.

Finally, it will be important for the current trend towards further harmonisation of financial regulation and the centralisation of supervisory powers to be a balanced one: on the one hand, it should not result in a lack of control during the transition process, while at the same time it should leave sufficient room for flexibility. The former is a real risk, because the transition from national to international supervision will certainly not be an easy one, and there is little experience with such a fundamental process. Another key question is whether centralisation and harmonisation will result in an adaptive and not overly rigid EU supervisory architecture.

4 A SHIFT IN FOCUS OF FINANCIAL SUPERVISION

Traditionally, prudential supervision has focused mainly on assessing whether individual financial institutions meet the statutory requirements in terms of solvency, liquidity and controlled business operations. The crisis showed that it takes more than this to realise the goal of protecting the stability of the financial system and the soundness of institutions. One crucial lesson was that individual institutions' compliance with rules does not guarantee financial system stability (cf. Borio 2011a). Many observers argued for the need for a wider look at the financial system, calling for a macro-prudential or system approach (see section 4.1). Another lesson was that financial supervision should pay more attention to financial firms' business models and business conduct and culture (see section 4.2).

4.1 Macro-prudential supervision

One of the most significant cognitive flaws in the regulatory and supervisory architecture in the run-up to the crisis was the failure to recognise that focusing on the stability of individual financial institutions is not sufficient to ensure the stability of the whole system (FSA 2009; Borio 2011a). A new consensus emerged that alongside monetary policy and micro-prudential supervision, macro-prudential regulation and supervision is also needed in order to maintain financial stability (Galati and Moessner 2011; Borio 2011a, 2011b; Baker 2013).

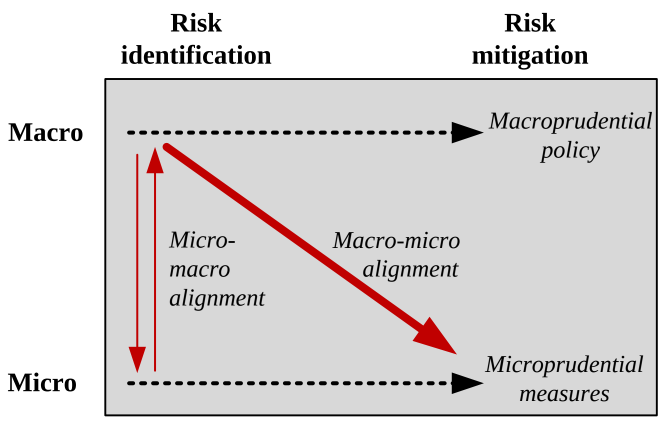
This section discusses several key future challenges for implementing macro-prudential supervision. It firstly argues that there may be tensions between micro and macro-prudential supervision, which calls for an adequate distribution of responsibilities between the different actors responsible for these domains. Second, it discusses the international dimension of macro-prudential supervision, arguing that a pan-European approach is crucial but that sufficient national responsibilities are both desirable and likely. Third, it discusses key challenges related to the fact that macro-prudential analysis and supervision is still in its infancy. This calls for an approach in which instruments are not excluded a priori and in which the supervisor takes a proactive stance. Finally, the fact that systemic risks often emerge in the interaction between regulated and unregulated institutions warrants the calls to increase the scope of prudential supervision.

4.1.1 Micro-prudential and macro-prudential supervision

While micro-prudential supervision focuses primarily on individual institutions, macro-prudential supervision targets developments that could threaten the stability of the entire financial system. A key difference is that macro-prudential supervisors take account of the interaction between financial institutions and their environment – i.e. other institutions, financial markets, infrastructure and the real economy (the structural dimension) – and the collective behaviour of firms and second-round effects (the cyclical dimension), while micro-prudential supervisors take these risks as given, since they assume them to be independent of the behaviour of an individual firm (Borio 2011a; De Haan et al. 2012; Houben 2013).

To be effective, macro-prudential analysis needs to feed into supervision at the micro-level. By incorporating macro-risks, micro-prudential supervision contributes to the stability of the system as a whole. Conversely, macro-prudential analysis needs to assess information from micro-prudential supervision in order to capture risks within systemic institutions, common exposures and nascent risks stemming from new financial products (Houben 2013). Figure 4.1 displays the interlinkages between macro and micro-prudential supervision. Apart from the different perspectives, a distinction can be made between risk identification and risk mitigation. The top left-hand panel thus covers macro-prudential analysis. The top horizontal arrow reflects the conversion of this analysis into macro-prudential policy. This relates to instruments aimed at mitigating system-wide imbalances, rather than addressing the specifics of an individual institution at a given point in time. The bottom left panel concerns micro-prudential risk identification, which is the bedrock of traditional supervisory activities. This comprises the customary risk factors (such as credit, market, operational, interest rate, country, strategic and liquidity risks) and disregards second-order effects. These risks are translated into micro-prudential supervisory measures.

Figure 4.1 Alignment of micro-prudential and macro-prudential supervision



Source: Houben (2013)

The alignment of macro and micro-prudential supervision occurs between these two levels, with two-way traffic. This creates synergy. On the one hand, micro-prudential information enriches macro-prudential analysis, for instance by identifying common exposures, concentration risk and network resilience. On the other hand, macro-prudential input is essential for an adequate assessment of the risks to individual financial entities. Indeed, this is arguably where supervision can be most readily strengthened and where most lessons can be drawn from the financial crisis.

Even though both types of supervision can be mutually supportive, the different perspectives of micro-prudential and macro-prudential supervision may also prescribe opposing measures (Schoenmaker 2012). For example, in times of system-wide liquidity strains, a macro-prudential authority may encourage institutions to lend out available funds, while a micro-prudential supervisor may urge institutions to limit their risks by hoarding liquidity. Similarly, in a cyclical downturn the macro-prudential supervisor may advocate a release of capital to foster recovery, while the micro-prudential supervisor will tend to prescribe higher capital buffers to offset increasing risks. This implies that a crucial future challenge will be to determine which considerations will prevail in times of stress. The complex and dynamic character of the financial sector will make it very difficult for supervisors to assess how macro-prudential measures, if they are deemed more appropriate, will affect individual institutions and how this in turn will affect financial stability.

This also raises the question of how micro and macro-tasks are allocated. The most common structure is for these responsibilities to be primarily assigned to the central bank. A frequently seen alternative is that responsibility for macro-prudential policy is vested in a committee representing the various authorities involved. There are a number of arguments in favour of assigning a key role to the central bank: it generally enjoys a high degree of independence, while also having the required monetary and macroeconomic expertise and being the ultimate source of emergency funding in the event of financial instability (Ingves et al. 2011).[14] The central bank is also generally perceived as being responsible for financial stability, something that applies even more in the case of integrated central bank supervisors. There are also considerations that favour a committee structure. Such a structure can for example promote the exchange of information and policy coordination between the various bodies that influence financial stability. In this way a committee structure can help achieve cooperative policy solutions, including with regard to the use of policy instruments not primarily focused on financial stability.

The Netherlands has opted for a mix of the two models. DNB is responsible for financial stability, which involves both a micro-prudential and macro-prudential mandate. However, in November 2012 the Financial Stability Committee was established, consisting of representatives of DNB, AFM and the Ministry of Finance. The Committee meets twice a year and is responsible for identifying financial stability risks and coming up with recommendations to mitigate those risks. A crucial issue for the future will therefore be how DNB integrates macro-prudential considerations, flowing from analyses of both DNB itself and the Financial Stability Committee, into micro-prudential supervision. As micro and macro-considerations will at times conflict, a key question is how the position of the macro-prudential department and the Committee can be strengthened to such an extent that it can effectively feed into micro-prudential supervision.[15]

4.1.2 The international dimension

The issue of distribution of responsibilities not only applies at the national level between micro-prudential and macro-prudential supervisors, but also at the national versus international level. Macro-prudential supervision is desirable at the international and European level, as the growing international connectedness between financial markets warrants an overarching perspective (cf. De Larosière 2009). Since 2011, the European Systemic Risk Board (ESRB) has been responsible within the European Union (EU) for macro-prudential supervision of the EU financial system. The ESRB does not have instruments of its own that it can deploy, as it can only issue warnings and make recommendations. Although these recommendations are not binding, the authorities addressed are obliged to respond under the principle of 'comply or explain'. In other words, they must follow the recommendation or explain why they are not doing so. In addition, by making its warnings and recommendations public, the ESRB can exert more pressure on authorities to respond to identified risks. In this way, its policy recommendations can definitely have an impact. Moreover, in the context of the European Banking Union, the ECB is likely to have a macro-prudential mandate. This will probably allow the ECB to challenge national macro-prudential measures and to apply more stringent measures directly to institutions than those applied by national authorities (Ferran and Babis 2013: 28).

It is nevertheless likely that primary responsibility for macro-prudential policy will remain with the EU Member States, and that the effectiveness of European macro-prudential policy will stand or fall with the way in which macro-prudential policy is structured at the national level. There are also good reasons to allow Member States discretion in the application of macro-prudential tools, as the pre-crisis period showed that individual countries had diverse experiences with the development of system-wide imbalances, with excessive credit and property booms in Spain and Ireland but not in Germany, for example (Turner 2013).

4.1.3 Limited experience with macro-prudential supervision

However, a key tension here is that experience with the analysis of systemic risk and the deployment of macro-prudential policy instruments by individual European countries is still very much in its infancy.

First, macro-prudential *analysis* requires a deep understanding of how system-wide risks emerge and how they are likely to materialise. The crisis showed that the financial system may be extremely fragile precisely at a time when all common indicators show that the system is stable (FSA 2009). There may also be a significant time lag between the moment when risks are taken and when their consequences materialise, making it very difficult for the prudential supervisor to prove that immediate action is necessary (Borio 2011a). Due to the nature of financial markets, financial supervisors are confronted with fundamental (Knightian) uncertainties that cannot be quantified. A key lesson is not to expect too much from highly complex and 'sophisticated' risk assessment models, because sometimes simplicity is to be preferred over complexity (Haldane 2012): "it is better to be approximately right than precisely wrong" (Borio 2011a: 10). This requires the supervisor to take the 'precautionary principle' seriously, with a proactive stance in which it explicitly errs on the side of caution (Houben 2013). It also implies that operational independence of the supervisor is crucial in order to insulate the supervisor from lobbying or political pressures to exercise regulatory forbearance.

Second, macro-prudential *policy tools* are still in the development phase, in contrast to micro-prudential instruments which are already well developed.[16] Indeed, notwithstanding the growing consensus on the need for active macro-prudential policies, practical experience with their application in developed countries is limited. The instruments of macro-prudential policy focus primarily on financial stability and act directly on financial relationships within economic sectors (such as Loan-to-Value (LTV) limits for household mortgages) – at financial institutions (as in the case of cyclical capital requirements for banks) or in financial markets (as, for example, with margin requirements for repo transactions) – or indirectly influence the behaviour of parties in the financial markets (for example in communications about risks).[17] Moreover, a recent IMF survey found that the fifteen European supervisory authorities questioned had varying preferences regarding macro-prudential instruments. Their answers to questions about the instruments they would wish to include in their arsenals showed that LTV limits, counter-cyclical capital requirements, margin requirements, restrictions on profit distributions and capital surcharges for systemically important banks enjoyed greatest popularity. Supervisors need an appropriate toolkit which they can experiment and become acquainted with. This will thus also require that supervisors try to develop an appropriate understanding of the effects of different policy instruments and learn from other supervisors' experiences.

4.1.4 The scope of macro-prudential supervision

Finally, a key future tension relates to the *scope* of macro-prudential policy. That scope should be such that it covers all potential sources of financial instability. This means that macro-prudential policy must also be capable of extending to developments at institutions or in markets that are not subject to micro-prudential or conduct supervision (e.g. institutions active in the shadow banking system). One lesson learned from the crisis is that it is precisely in the interaction between regulated financial institutions and non-regulated or less well-regulated financial institutions and markets that systemic risks can arise (De Haan et al. 2012). In the run-up to the crisis, many financial activities were displaced to highly leveraged institutions that were largely unregulated (the so-called shadow banking system; cf. FSA 2009: 20). Systemic risks could thus emerge without the supervisor having a good idea of the nature of those risks, let alone being able to do something about them. The crisis showed that regulated and unregulated institutions were in fact closely connected, as illustrated for example by the fact that many financial institutions took the assets of the off-balance sheet vehicles back onto their balance sheets when these vehicles got into trouble.

This implies that future steps to extend the scope of supervision to include current unregulated institutions are desirable. As a minimum, it implies that regulated institutions should provide the supervisor with adequate information about their exposure to unregulated financial institutions, and that unregulated institutions should provide the supervisor with sufficient information on their financial position and their relationship with other financial firms.

4.2 The use of soft indicators in supervision

Another major lesson from the financial crisis is that supervisors should be asking questions in relation to business models, corporate strategies, conduct and culture (Hilbers 2011). The crisis showed that failures of financial institutions are often related to fundamental problems in these areas. The implication is that supervision must probe to a deeper level. It must track down and tackle the possible sources of future problems before they translate into deteriorating solvency and liquidity ratios. This is necessary given the increased speed at which developments in the financial sector arise and can escalate into a crisis. By paying more attention to 'soft indicators', supervision becomes more forward-looking (DNB 2010b). This section discusses two categories of 'soft indicators'– (1) business models and strategies;

and (2) conduct and culture – and the challenges supervisors face in the assessment of these indicators.

4.2.1 The assessment of business models and strategies

An important category of soft indicators consists of business models and strategies (cf. Cavelaars and Passenier 2012). Relevant questions in this area are: how does the institution create competitive advantages? How does it retain its customers' trust? How efficient is it? To what extent is the institution's strategy endorsed by its stakeholders and capable of withstanding external dynamics?

Analysing business models helps in understanding the risks within financial institutions (cf. Boot and Thakor 2000; Stiroh 2004; Arnold and Van Ewijk 2011). Financial institutions make money by accepting risk. Therefore, supervisors need to understand the strategic choices underlying financial institutions' balance sheets. Banks may for instance run a long balance sheet (combining low-risk assets with high leverage in order to enhance profitability), an 'originate to distribute' model (originating loans and selling them), or they may use carry trade (involving a systematic exposure to currency/country risk, by attracting deposits in a low-interest rate country and lending in a high-interest rate country) to generate profits.

It is equally important for supervisors to understand why specific activities are profitable, and especially so if they are highly profitable. The reverse is also true: activities that are structurally loss-making may indicate that management finds it difficult, for whatever reason, to downsize these particular activities. In any case, activities that are an outlier in terms of profitability often deserve further attention. Sources of profits cannot always be attributed to a single line of business, as the calculated profitability of individual activities is usually sensitive to the allocation of overhead costs. Therefore, supervisors may want to focus on a breakdown of revenues rather than profits, or look at personal salaries to identify which departments stand out as money-makers.

Supervisors also have to assess the sustainability of profits. Business models may be unsustainable for a number of reasons. For instance, business models that use large-scale cross-subsidies between products are likely to be unsustainable as competitors will enter the market and start to offer those products that are priced above marginal costs. Business models based on abuse of consumer misperceptions or lack of knowledge are also unsustainable. Examples of such behaviour are mis-selling and excessive lending. Over time, the public becomes informed and by that time the bank involved may have suffered severe reputational damage.

The financial crisis laid bare certain common vulnerabilities in the business models of banks that were particularly hard hit by the crisis (cf. Altunbas et al. 2011; Fitch 2011; Chow and Surti 2011; Liikanen 2012). Financial supervisors can draw lessons from the crisis as to what indicators may warn of future trouble, though it has to be borne in mind that past experiences will not always be indicative in this respect. A key lesson was that banks that placed great reliance on short-term market funding and aggressive credit growth had a very high risk exposure (Altunbas et al. 2011; Fitch 2011). Trading risks were also identified as an indicator of the risk of financial distress (Chow and Surti 2011; Liikanen 2012; cf. Boot and Ratnovski 2012).

The Dutch prudential supervisor DNB regularly evaluates the strategic choices made by financial institutions, starting when they apply for a licence and continuing thereafter. This involves discussions with management, analytical 'deep-dives' and panel sessions between supervisors and experts. Such evaluations may imply that financial institutions are required to make changes, which can sometimes be far-reaching. The supervisor does not take over management's role, but challenges management and may demand that an institution act upon major risks at an early stage. Of course, there is a key tension here, as it requires the supervisor to develop certain yardsticks in order to assess when a business model is viable and when it is not. Another key question is whether an increased focus on business models implies that when a bank's business model is not challenged by the supervisor, this implicitly means that the supervisor deems it safe.

4.2.2 Conduct and culture at financial firms

The conduct and culture at financial institutions is a second set of soft indicators. The crisis has reaffirmed that soundness not only has a solvency component but also an integrity component, and that integrity is a precondition for regaining public trust in the financial sector. A culture of integrity is one in which actions can be explained and accounted for. It respects not only the letter but also the spirit of the law.

An institution's financial figures may suggest that its continuity is not at stake, while at the same time its conduct and culture may pose risks to its long-term viability. DNB pays explicit attention to aspects such as leadership and leadership styles, the convictions and values of staff members, openness of discussions and unconscious group patterns of behaviour. For example, DNB carried out a thematic study focusing on balanced decision-making.[18] This helped convince the institutions concerned of the need to pay attention to risks in the area of culture and conduct. This led some institutions to take measures on their own initiative. DNB also informed the entire financial sector about the main findings of the study, enabling the sector to become further acquainted with the nature of the supervision of conduct and culture, and helping to raise awareness about the risks involved (cf. Nuijts and De Haan 2013).

An alert reaction to risks related to conduct and culture means that it is possible to intervene before the risks materialise. Importantly, supervisors can try to make an institution aware of potential risks related to conduct and culture and how they may contribute to the onset and continuation of prudential and integrity risks. In this way, supervision of conduct and culture contributes in a preventive manner to the realisation of supervisory objectives: safeguarding the soundness and integrity of both individual institutions and the financial system as a whole.

4.2.3 Future challenges of using soft indicators

The use of 'soft' indicators in supervision involves several challenges. First, the analysis of soft risk indicators requires a different set of knowledge and skills compared to 'traditional' supervision. The supervisor must possess adequate expertise to understand and judge the sustainability of firms' strategies, especially highly complex and internationally active firms. Moreover, judging the business culture requires different expertise from judging the solvency ratio. To cope with this challenge, DNB has for example hired organisational psychologists and change experts to complement the existing staff. These new specialists work alongside auditors, economists and legal experts. Second – and this applies mainly to the assessment of business models – the increased speed of financial market developments implies that supervisors will have to be alert and responsive to changing market circumstances affecting business models, or changing business models affecting market circumstances. Third, there is a need to overcome hesitation on the part of the supervised financial institutions (and sometimes within the supervisory authority itself) about the importance of soft indicators. Finally, questions related to business models, strategies, conduct and culture are typically more difficult to address. They require a deep understanding of the business and the courage to question the functioning of an institution's board. Identifying and solving problems of this nature demand more alertness, assertiveness and persistence on the part of the supervisor.

4.3 Conclusion

This chapter discussed issues relating to an expansion of the scope of financial supervision. The crisis demonstrated that supervision has to go beyond checking firms' compliance with existing rules, but also has to look at the stability of the system as a whole and at 'softer', more forward-looking indicators of potential future threats to financial stability. A key challenge is that supervisors currently have only limited experience with these new focus areas. There is no real consensus as to what instruments will be most productive in contributing to system stability, and what potential negative side effects these instruments have. Supervisors will therefore have to learn from each other's experiences. Moreover, the focus on 'soft indicators' is relatively new, and supervisors have to learn which features of firms' business model and conduct and culture are key indicators for future problems. It will require a more intrusive stance on the part of supervisors, which will have to become more involved in the actual conduct of financial firms. How this will play out in the future remains a key question.

5 ACCOUNTABILITY AND EXPECTATIONS OF FINANCIAL SUPERVISION

The previous two chapters argued for a more proactive supervisory role. To fulfil their mandate to contribute to the stability and integrity of the financial system, supervisors need an adequate degree of supervisory discretion and need to broaden their scope to become more system-oriented and more forward-looking. This, however, also necessitates an adequate degree of accountability to the political domain and the general public. Supervisors will need to invest more effort in being transparent about their conduct, the effects of supervision and the limits of supervision in order to maintain public and political support. However, this brings several challenges and tensions. This chapter addresses several of these difficulties. Section 5.1 addresses issues relating to increased transparency about supervisory conduct and the effects of supervision. Section 5.2 addresses the difficulties for supervisors in living up to the public's high expectations of what financial supervision can achieve, arguing that supervisors should become more active in the public debate on the possibilities and limitations of financial supervision.

5.1 Accountability and learning: transparency and effect measurement

The global financial crisis has raised questions about the accountability of financial supervisors. It became clear during the crisis that information regarding supervisory activities and their impact was inadequate to assess the degree to which supervisors were fulfilling their mandate adequately. Calls were made to give the public and the legislative and executive branches of government a greater insight into whether supervisors were performing the right tasks and whether they were performing their tasks well. This section discusses the benefits and dangers for supervisors of being more transparent about their work. It first discusses some general aspects of being more transparent, arguing that transparency may help supervisors fulfil their mandate adequately, but may also undermine financial stability (section 5.1.1). It then discusses the potential for creating a greater insight into the performance of the supervisor, arguing that there can be a tension between measuring effects for accountability purposes and for learning purposes (section 5.1.2).

5.1.1 Transparency

The debate on supervisory transparency has been complicated by the fact that it is a qualitative concept which is difficult to measure.[19] Transparency refers to an environment in which the objectives of policy, its legal, institutional, and economic framework, policy decisions and their rationale, data and information related to policies and the terms of supervisory agencies' accountability are provided to the public in a comprehensible, accessible, and timely manner (IMF 2000). Transparency is thus a crucial component for ensuring accountability. Although other arrangements for democratic accountability naturally exist, information concerning the conduct of supervisors is essential for the assessment of their performance.

Various arguments can be put forward for why transparency of banking supervisors may be beneficial (Liedorp et al. 2013). First, transparency may enhance the legitimacy of the supervisor. Given that supervisors are independent organisations in which unelected officials take important decisions, ensuring legitimacy is vital. Especially in times of financial turmoil, the legitimacy of the authorities responsible for banking supervision is crucial. Transparency may thus also safeguard an adequate degree of independence for the supervisor. By making actions and decisions transparent, the chances of undue interference based on an inaccurate perception of the supervisor's conduct are reduced. Second, transparency may increase the predictability of the supervisor, which in turn may encourage banks to adhere to existing regulations. Indeed, Arnone et al. (2007) report a positive correlation between the transparency of supervisors (measured by the extent to which countries implement the IMF Transparency Code on Banking Supervision) and the effectiveness of banking supervision. As transparency may help shape expectations, it can improve the robustness of linkages across institutions and markets. As pointed out by Sundararajan et al. (2003), uncertainty about the policy framework and its intent could itself contribute to abrupt and destabilising market behaviour.

Indeed, supervisors are increasingly endorsing transparency. In this regard, transparency is mentioned in the Basel Core Principles for Effective Banking Supervision as a key component:

> "(a)n effective system of banking supervision will have clear responsibilities and objectives for each agency involved in the supervision of banks. Each such authority should possess operational independence, transparent processes, sound governance and adequate resources, and be accountable for the discharge of its duties" (Basel Committee on Banking Supervision 2006: 2).

However, there are also important arguments in favour of secrecy about banking supervision. First, revealing information about a financial institution does not act as a neutral mirror of the firm's financial position, but may actually trigger events that influence that position. This is the 'reflexive nature' of financial markets, meaning that market participants' perspectives on financial markets may in fact drive financial market activity. For instance, exposing liquidity problems at particular firms may freeze the interbank market or trigger bank runs, in effect exacerbating those firms' liquidity problems. A good example is the money market turmoil that started in the summer of 2007. Second, lack of transparency is needed for ‘constructive ambiguity’, which is one instrument for limiting moral hazard by the lender of last resort. By introducing an element of uncertainty about the provision of support, pressure can be maintained on banks to act prudently, since individual banks will not know whether they will be rescued or not. Finally, financial supervisors face more restrictions in being transparent than monetary policymakers. For instance, they cannot reveal much information about individual financial institutions; most supervisors face legal restrictions in this regard.

These observations lead to two general implications for the future transparency of supervisors. First, supervisors will have to assess which information they can be transparent about and which they cannot. It seems obvious that there are certain limits to the transparency about information concerning the financial position of individual firms, given the legal restrictions and the ‘reflexive’ nature of financial markets. Nevertheless, DNB has begun a project to explore how the public can be provided with more information on the health of financial institutions (Knot 2013). Additionally, there should be less resistance to transparency about the conduct of supervisors themselves. Increased disclosure regarding the general strategy and policy objectives of supervisors can contribute to ensuring an adequate degree of accountability. In this case, the supervisor should of course remain alert to the (unintended) effects this increased transparency has on financial firms and other market participants (cf. Gerritse 2012). Second, it is important to distinguish between different audiences. Accountability to the legislative branch of government may involve closed sessions in which the supervisor discloses relevant information about its conduct on a confidential basis, in so far as legal restrictions are not breached. This will contribute to democratic accountability, while an adequate degree of secrecy is maintained.

5.1.2 Measuring the effects of supervision in the financial sector

Closely related to the above discussion, the global financial crisis has raised questions concerning the *performance* of financial supervisors. As their work is being scrutinised, financial supervisors need to become better at demonstrating that their efforts and actions lead to results. Measuring the effects of supervision must consequently become an integral part of the supervisory process and is becoming increasingly important for financial supervisors such as DNB. This section discusses some difficulties and opportunities for measuring effects, and indicates a possible tension between effect measurement for learning purposes and for accountability purposes.

In financial supervisory practice, measuring effectiveness is not a straightforward matter (Hilbers et al. 2012). This is mainly due to the difficulty of proving causality. A change in a financial institution's risk profile might for instance have little or nothing to do with a supervisory intervention, but could simply be the result of a change in economic conditions or some other exogenous factor. Moreover, as discussed above, financial supervisors typically face the legal question of whether they are allowed to report on their interventions. As a result of these challenges, the development of performance measurement in financial supervision has long been in its early stages.

At the same time, financial supervisors have increasingly come to realise that, while performance measurement is challenging, it is certainly not impossible. For one thing, it is important to define an objective for the performance measurement and consequently select appropriate and useful indicators for measuring the effect. The choice of indicators is closely related to the objective, since the objective will determine whether effects are to be measured at a strategic, tactical or operational level. At the strategic level, supervisors typically strive to present the strategic outcome of their actions to the government or general public. This may for instance refer to the extent to which supervisory efforts have contributed to the overarching goal of financial stability. Performance measurement at the tactical and operational level, by contrast, is more focused on improving the quality and efficiency of the supervisory processes. If effects are to be measured strategically, the indicators chosen will need to show effects at a more aggregated level, while a lower level of abstraction will apply if effects are to be measured at a tactical or operational level.

In general, more and more financial supervisors are developing objective and useful indicators for measuring supervisory effectiveness. DNB, for example, has worked on developing a coherent set of key performance indicators. In practice, the observed key performance indicators can be classified as either 'hard' or 'soft'. Hard indicators are based on quantitative data, for instance indicators based on market data that give an assessment of the risk profile of a financial institution. Another type of 'hard' performance indicator is related to the number of bankruptcies and the amount of losses accompanying these defaults. The Australian prudential supervisor APRA, for instance, uses the Performance Entity Ratio (PER) which reflects the number of supervised institutions that meet their commitments to beneficiaries in a given year, divided by the total number of supervised institutions. The advantage of 'hard' performance indicators is that many of them are relatively easy to interpret and monitor over time.

Soft indicators, by contrast, are typically based on qualitative information. They have the advantage of being able to measure qualitative aspects of supervision, but tend to be somewhat less objective than hard indicators. An example of a soft indicator is the migration of financial institutions within predefined supervisory regimes or risk scores. This type of migration parameter not only forms part of DNB's key performance indicators, but is also reported by the Canadian OSFI and the Australian APRA. Public confidence in financial institutions and the financial supervisor is another example of a soft performance indicator. In addition, performance indicators can also be based on the outcome of external or peer reviews that measure the level of compliance with national or international supervisory standards (such as the IMF FSAP analysis). An international comparison of outcomes between peers (or over time) can be an effective way of measuring the performance of financial supervision.

Apart from the difficulties of assessing the performance of supervisors, a key question relates to the purposes for which these findings are used. Effect measurement can be used both to hold supervisors to account and to learn from experience. These objectives are not necessarily compatible (cf. Welp 2012). *Near miss* analyses, for example, may greatly contribute to future improvements in supervisory practices, but may be avoided where such information is primarily used for 'attributing blame'. There is also the issue of transparency in performance measurement. If a supervisor discloses that its conduct contributed to the avoidance of a firm's bankruptcy, this information might also contribute to future troubles as market participants suspect that other financial institutions might also be in trouble (i.e. the 'market reflexivity' argument discussed above).

5.2 Expectations and demands of supervision

Supervisors operate in an arena in which they have to strike an adequate balance between the different demands of multiple actors. In fulfilling their mandate, prudential supervisors have to pay attention to the expectations of the legislative and executive branch of government, the supervised institutions, the people who have deposited their money into bank accounts and the 'general public'. These demands may shift over time and may at times be conflicting. The legislative branch of government may, for example, expect the supervisor to guarantee firms' compliance with existing policy in order to prevent incidents from occurring, but may also expect the supervisor not to place too heavy an administrative burden on financial firms. The executive branch may focus on the efficiency of supervision, paying attention to the scope for achieving maximum results at minimum cost. The firms themselves expect the supervisor to place great trust in their compliance with rules and norms and therefore not to be too intrusive, while at the same time expecting the supervisor to guarantee compliance with rules and norms by other financial firms. Depositors expect the supervisor to guarantee that their money is safe, in effect expecting the supervisor to prevent bankruptcies at all times. Finally, the general public expects the supervisor to be able to guarantee financial stability and prevent financial turmoil from occurring.

Supervisors are expected to live up to the demands of the political domain, which itself has to live up to the demands of the general public (the electorate). However, these demands and expectations may at some point be too high, in the sense that the public may to some extent expect the supervisor to be able to guarantee financial stability and prevent firms' failure at all times. This section looks at the challenges facing supervisors in coping with these demands. It argues that living up to certain expectations would in some instances undermine supervisors' ability to fulfil their mandate adequately. It also argues that the supervisor can play a key role in informing a more general public debate about the limits of supervision and the possibilities for a financial market structure in which supervision can be more effectively exercised.

As European financial markets were relatively calm during the late 1990s and the early part of the new millennium, and no major financial crises occurred within Europe, many commentators hailed a new era of financial stability, high growth and low and stable inflation (the so-called 'Great Moderation'). As banks proved able to withstand the implosion of the dot-com bubble (2000-2001) relatively unscathed, many believed that financial firms' risk management strategies had become very sophisticated and that future threats were minimal. Simultaneously, financial sectors were booming, and national policy in many countries became more market-friendly. For instance, in the UK the dominant perspective became that "unnecessarily restrictive and intrusive regulation represented a key threat to the vitality, efficiency and productivity of the financial services sector" (Adams 2013). In effect, governments across Europe and the US expected supervisors to be increasingly lenient and felt that supervision need not be too intrusive. Meanwhile, public attention for issues relating to the regulation and supervision of financial markets was generally low.

The financial crisis placed financial stability at the centre of attention, and it has since been a highly salient political topic. As a consequence, politicians and the public now demand a more proactive and intrusive stance by financial supervisors. Supervisors have already responded to these demands by formulating and implementing new, more intrusive supervisory strategies (cf. DNB 2010b; Adams 2013). However, it should be emphasised that for the supervisor, living up to the high expectations of the public will in many cases be very difficult.

Based on a survey in the Netherlands, Van der Cruijsen et al. (2013) show that 86 per cent of respondents who had an opinion on the subject (completely) agreed with the view that supervisors have to ensure that banks never go bankrupt. One problem with this expectation is that, given the dynamic nature of financial markets, preventing financial failure at all times is impossible. In fact, it may be counterproductive for a supervisor to make ‘preventing defaults at all times’ a core part of its supervisory strategy, since this could introduce significant moral hazard problems, both at the level of firms and of financial services customers. If a bank knows that the supervisor will at all times ensure that it will not go bankrupt, it may become less prudent in its business conduct. Depositors will also pay marginal attention to which financial firms they do business with, expecting the supervisor to prevent failure at all times. In effect, this could undermine market discipline in the financial sector.

Van der Cruijsen et al. (2013) also report that a majority of respondents think that supervisors should inform the public when a bank gets into difficulties. However, as already outlined in the previous section, this is often too dangerous because of the reflexivity of financial markets. Such a message could undermine confidence in the financial institution or even the financial system. The supervisor will therefore be very cautious in communicating troubles at financial firms, as this could be counterproductive. On this front, too, therefore, the supervisor will fail to live up to public expectations.

These findings suggest that supervisory authorities should communicate the limits of supervision to the public at large even more actively, especially in times when those limits have become overshadowed by a booming financial sector. The timing of this is always difficult. Risks may build up in the financial sector when the economy is on the rise, (over)confidence is gaining the upper hand, and attention for risk mitigation is subdued in favour of potentially lucrative opportunities. In such circumstances, the public is less receptive to supervisory warnings, especially when these come with new restrictive powers for the supervisor (Kellerman and Mosch 2013: 14-15).

However, it would not be correct to dismiss the high expectations of the general public as plain ignorance. The fact that public trust in financial institutions and in financial supervisors has diminished significantly in the past few years, and that there have been widespread calls for reforms (in both the political and social domain) to make the financial system safer, should be a key message to financial supervisors. A proactive supervisor that contributes to the public interest of financial stability should not shy away from a general public debate about the structure and nature of financial markets and firms and the extent to which this structure facilitates or impedes its own ability to supervise financial firms effectively.

In fact, supervisors will have to become more active in the public debate about the pros and cons of particular reforms of the financial sector, though of course only to the extent that this relates to their mandate. For instance, across Europe and the US, public debates have arisen on the most desirable structure for the banking sector in the future (cf. Liikanen 2012). In the Netherlands, the possibilities for and pros and cons of such reforms are also currently being debated (the Wijffels Commission). Given its expertise and experience with financial market supervision, the supervisor is in a good position to outline the potential benefits and harms of banking sector reform with respect to the potential benefits for future financial stability and whether the reforms may improve the ability of the supervisor to contribute to financial stability.

5.3 Conclusion

This chapter discussed future questions relating to ensuring an adequate degree of supervisors' accountability to the political domain and the general public. The chapter argued that transparency regarding the supervisor's conduct and the effects of supervision is paramount, but that supervisors have to strike a delicate balance between openness and secrecy. As financial markets are reflexive – i.e. market participants' perspectives on the functioning of the system can actually drive financial market activity – the information that the supervisor discloses may potentially have disruptive effects. Moreover, it will be very difficult in practice for the supervisor to demonstrate the precise effects of supervision, because in a dynamic sector financial stability is influenced by many actors and factors. However, a key future task for supervisors lies precisely in finding ways to communicate effectively with different audiences (parliament, the public) about their conduct and results. Supervisors will also have to make clear where the limits of supervision lie. This also implies that supervisors need to play a more active role in the public debate about the future structure of the financial sector, and whether a reform of that structure is actually likely to contribute to financial stability and to the ability of the supervisor to fulfil its mandate effectively.

6 CONCLUDING REMARKS

Financial markets are dynamic, complex and highly adaptive. What does this imply for the limits and possibilities of financial supervision? In this paper, this question was addressed by looking at several key future challenges for prudential supervisors.

Important trends in financial markets and financial supervision were identified in this paper. The financial system has expanded greatly over the last few decades. The sector has consolidated and become more concentrated. National markets have become more and more interconnected as firms expanded their business globally. And recent decades have brought a wave of financial innovations and the emergence of new financial actors. Financial markets have thus become more interconnected and complex. Moreover, as firms have continuously adapted their business models to new circumstances, such as the changing macroeconomic environment, innovations in ICT or modified regulation, financial markets have become highly dynamic. Financial market supervision has responded to these new market circumstances, but the financial crisis laid bare some serious shortcomings in the existing regulatory and supervisory frameworks. It demonstrated that financial supervision is a demanding and challenging task.

It was argued in this paper that, given these characteristics of financial markets, we should have more modest expectations of what supervision can achieve. Financial supervision contributes to the public interest of financial system stability and integrity, but cannot provide guarantees. If financial supervisors are proactive and adaptive and have an adequate degree of independence and discretionary freedom, they are in the best position to play their role to the maximum.

As argued in Chapter 3, this implies that ensuring compliance with existing financial market rules is key but not *sufficient* to contribute to financial market stability. Supervisors will have to go beyond ensuring compliance and enjoy a sufficient degree of independence in order to fulfil this task. In a complex and dynamic sector, supervisors will need to be adaptive themselves, able to respond quickly to newly emerging threats to the stability and integrity of the financial system. They will need to communicate actively with other supervisory and regulatory authorities to ensure a concerted and rapid response. Moreover, supervisors should make an active contribution to the regulatory process, as they are in a key position in assessing whether existing rules and norms are achieving the intended results or whether they have unintended consequences.

Chapter 3 also identified several challenges relating to the governance of financial supervision in the European and national regulatory architecture. Key tensions relate to the extent to which national supervisors can exercise supervisory discretion, given existing and future supervisory and other regulations at both the national and international level. This adaptive and proactive role for supervisors will require a sufficient degree of independence, from both political interference and industry interests. Supervisors will require an independent attitude and sufficient capabilities to be able to exercise unbiased supervision in practice, focused on ensuring financial stability. Finally, a key question will be whether the trend towards further harmonisation of financial regulation and the centralisation of supervisory powers is a balanced one. As became evident during the financial crisis, a sufficient degree of harmonisation of rules and centralisation of supervisory powers at EU level is necessary given the way in which financial markets are currently organised.

Chapter 4 argued that supervisors will have to broaden their scope, focusing on the stability of the system rather than solely on the stability of individual firms (macro-prudential regulation). Prudential supervision will have to become more forward-looking, identifying whether firms' business models, corporate governance structures and conduct and culture could harm the financial system's stability and integrity. A key challenge here is that supervisors currently have only limited experiences with these new focus areas. There is no real agreement among supervisors as to which instruments will be most successful in contributing to financial system stability, and what the potential negative side-effects of these instruments might be. This calls for an approach in which supervisors try to learn from each other's experiences. Furthermore, the focus on 'soft indicators' is relatively new, and supervisors will have to learn which features of firms' business model and conduct and culture are key indicators for future problems. Experiences gained during the financial crisis regarding which indicators were particularly indicative of future troubles may be helpful in this respect. A focus on soft indicators will require a more intrusive stance by supervisors, which will need to become more involved in the actual conduct of financial firms.

Finally, Chapter 5 argued that supervisors will have to match a sufficient degree of independence with accountability, communicating with different audiences about the possibilities, effects and limits of supervision, in so far as this is not counterproductive to the supervisor's mandate. Gaining and maintaining political and public support for the supervisory agencies' work is key, and supervisors will sometimes have to venture into new territory to explore the boundaries of increased transparency.

Supervisors have to strike a delicate balance between transparency and secrecy. As financial markets are reflexive – i.e. market participants' perspectives on the functioning of the financial system can actually drive financial market activity – the information that supervisors disclose may potentially have disruptive effects. This is especially dangerous in a situation where financial institutions are in a dire situation and market participants' confidence in the system's stability is low. Another challenge lies in demonstrating the precise effects of supervision, since in a dynamic sector financial stability is influenced by many actors and factors. Nevertheless, a pertinent future task for supervisors lies precisely in finding ways to effectively communicate with different audiences (parliament, the public) about their conduct and the results achieved. Finally, supervisors will have to make clear where the limits of supervision lie. This also means that supervisors will need to play an active role in public debates about the future structure of the financial sector. They should highlight, independently and impartially, the potential pros and cons of different options for financial sector reform, though of course solely as this relates to financial stability and to the ability of the supervisor to fulfil its mandate effectively.

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Notes

1 Since the crisis, the bancassurance model that emerged in the early 1990s has been firmly on the decline. First and foremost this is because the expected advantages of the model, such as cross-selling, have not sufficiently materialised. More importantly, bancassurance conglomerates have proven to be rather complex to manage, and hard to resolve in times of crisis. However, this does not mean that bancassurance has completely disappeared. In fact, many insurance companies have in recent years set up banking entities, attracting retail savings and engaging in mortgage lending.

2 This is a rough estimate of the share of assets held by Dutch banks in foreign entities. The foreign business has been estimated using the difference between total business (consolidated banking statistics balance) and domestic business (domestic MFI balance sheet). These statistics are published on the DNB website (www.statistics.dnb.nl). Corrections for securitisations and intragroup exposures have been made, using non-public DNB data. An alternative approach is to calculate the exposure of Dutch banks to non-residents as a share of their total exposure. This results in an estimated decline in foreign exposure from over 60 per cent before the crisis to around 35 per cent today, confirming the trend reported in the main text.

3 See Power (2004) for a discussion of the general policy trend towards risk-based governance.

4 The three Lamfalussy committees were: the Committee of European Banking Supervisors (CEBS), the Committee of European Securities Regulators (CESR) and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). These committees were composed of high-ranking representatives from the national supervisory authorities. The CEBS also included representatives from the national central banks. Apart from advising and assisting the European Commission in the development of technical implementing measures, these committees also dealt with the exchange of supervisory information, the consistent implementation of European legal acts and the harmonisation of supervisory practices in the European market for financial services.

5 In the Netherlands, the crisis did not trigger major institutional changes in the governance of financial supervision. The Twin Peaks model, in which DNB is responsible for prudential supervision and the AFM for business conduct supervision, was not called into question. At the same time, DNB and the AFM took the episode as an opportunity to further strengthen their cooperation. Since the crisis, other countries have introduced their own variants of the Twin Peaks model, indicating that in those countries this institutional framework is seen as having important benefits. However, as Masciandaro et al. (2011) show, there is little evidence that the precise architecture of the supervisory framework had much impact on financial sector stability. This should serve as a warning not to expect that changes in the supervisory architecture will by themselves diminish the risk of financial sector instability.

6 See Commissie Horizontaal Toezicht Belastingdienst (2012; in Dutch) for an evaluation of horizontal supervision by the Dutch national tax authority.

7 This practice of sending legislative letters was introduced in 2010 and the ministers have established a habit of forwarding these letters to parliament, including a written response.

8 According to Dickson (2013), a model based on industry fees seems preferable to one derived from government budgets as it helps guarantee a more stable funding source over the cycle and shields supervisory agencies from fiscal vacillations.

9 These costs include the reduced borrowing capacity that may result from supervisory interventions. An authority that is dependent on the political cycle, or is exposed to political pressure in some other way, will therefore tend to postpone such policy measures.

10 A notable exception is the study by Das et al. (2004), but these authors focus on the relationship between regulatory governance (including independence) and a Financial System Stability Index (FFSI). The FSSI is composed of two quantitative variables: the capital adequacy ratio (CAR) and the ratio of non-performing loans (NPLS). The CAR is the ultimate indicator of the resilience of a financial institution to shocks to its balance sheet, while the ratio of NPLS signals the quality of the financial institution's portfolio. The construction of the governance index (RGI) is computed as the weighted combination of a country's compliance with the BCBS's principles concerning independence, accountability, transparency and integrity, derived from the assessments undertaken as part of the FSAP. As shown below, the two indices are positively related. This is confirmed by econometric estimates in which the authors estimate the impact of regulatory governance on financial system soundness, along with the impact of a set of control variables covering macroeconomic conditions, the structure of the financial system and aspects of the quality of institutions and public sector governance. Throughout the specifications, the results consistently confirm the importance of good regulatory governance for the soundness of the financial system.

11 Nevertheless, it should be stressed that achieving full harmonisation is complicated and will face significant obstacles. For instance, the ESA's powers currently stop short of really prescribing how national supervisors should supervise their institutions. One reason for this is that, with the exception of the Binding Technical Standards, the ESA's powers are based on soft law, allowing national supervisors to deviate as long as they explain why. Also, especially in the case of the European Banking Authority (EBA), the crisis management

powers are confined to those that do not have an impact on national public finances. Budgetary and staffing limitations constitute other obstacles to becoming a true European supervisor.

12 Whereas the ECB's direct supervisory responsibility focuses on the largest and many of the medium-sized banks, the national supervisors will remain responsible for supervision of the smaller banks. However, the ECB will be 'exclusively competent' regarding the supervision of all banks, setting the overall policy framework, safeguarding supervisory quality and consistency, and taking over supervision from national supervisors if it deems this necessary.

13 The resolution authority should be able to settle a bank failure in an orderly fashion and seek to find solutions in which shareholders and, where necessary, creditors are the first to bear the losses. Temporary funding may be provided from the resolution fund, which will be financed ex ante by European banks. A resolution fund at the European level will limit the financial risks for European governments as, in principle, banks will be liquidated without national public funding. European governments will jointly provide a safety net only as a last resort, for example through the ESM.

14 The flipside of this argument is that putting supervision under the same roof as the central bank could undermine the independence of the central bank.

15 In the UK, for example, a debate has ensued on how to ensure that macro-prudential considerations are effectively applied by micro-prudential supervisors (cf. HM Treasury 2012). In the UK case, the Financial Policy Committee (an independent department at the Bank of England) may issue directions to the supervisors on the measures to be taken (such as additional capital requirements for real estate assets). The supervisors have to act on a 'comply or explain' basis and have to report back on the steps taken.

16 The *objective* of macro-prudential policy is to protect financial stability, which can be defined as the ability of the financial sector to efficiently allocate financial resources to expenditure, to manage risks and to absorb external shocks, while not being a source of disruption itself. Financial stability is largely determined outside the domain of macro-prudential policymakers and by exogenous shocks and other policy fields. However, macro-prudential policy is a narrower concept than financial stability and only covers those instruments primarily targeting financial stability.

17 See Galati and Moessner (2011) for a discussion of instruments and Lim et al. (2011) for an analysis of country experiences. Using cross-country regression analysis on data from a group of 49 countries, these authors conclude that the following instruments may help dampen procyclicality: caps on the loan-to-value ratio, caps on the debt-to-income ratio, ceilings on credit or credit growth, reserve requirements, countercyclical capital requirements and time-varying/dynamic provisioning.

18 See, for instance, Brown and Sarma (2007) and De Dreu et al. (2008) on decision-making in firms.

19 Recently, Liedorp et al. (2013) have proposed a way of measuring the transparency of banking supervisors, following the methodology proposed by Eijffinger and Geraats (2006) for measuring the transparency of monetary policymakers.

20 The authors wish to thank Ingmar van Herpt (De Nederlandsche Bank) for his contribution to this study, and Arnoud Boot (WRR) and Pieter Welp (WRR) for their helpful comments on earlier drafts. Responsibility for the content of this study and the views expressed in it rests with the authors.