Financial Stability and Central Banks

SELECTED ISSUES FOR FINANCIAL SAFETY NETS AND MARKET DISCIPLINE

Liisa Halme, Christian Hawkesby, Juliette Healey, Indrek Saapar and Farouk Soussa

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Foreword

In 1998, the Bank of England’s Centre for Central Banking Studies (CCBS) under its then Director, Professor Maxwell Fry, began a programme of Academic Workshops. These workshops aim to explore a topic of relevance to central banking by inviting around 20-25 central bankers for discussions with academics, international policy makers and fellow participants over a period of a week. Following a workshop three or four of the participating central bankers stay on at CCBS to take part in a related project, usually lasting around ten weeks.

In 1999 the CCBS hosted three academic workshops. The first, in January, looked at “Financial Market Data for International Financial Stability” and the second, in April, studied “Lessons for Central Bankers from Recent Financial Crises”. The final academic workshop of the year, and the one which prompted this volume, took place in September under the title “Central Bank Responsibility for Financial Stability”.

It is a daunting task to do justice to such a title, given the wide range of topics that it encompasses. And financial stability is not like monetary policy – there is no single measurable indicator that the authorities can benchmark their activities against. Look at central banks around the world and you will find a spectrum of responsibilities in this area.

What all central banks do have in common is an interest in financial stability as a public policy objective, as a key factor influencing macroeconomic performance and the potential for systemic disturbances. Various structural factors can affect financial stability, and public authorities have a range of tools they can use to influence these structural factors and to address crisis situations when they occur. Many of these factors and tools were discussed during the September workshop, but not all the issues raised could be followed up by the subsequent project team.

Given the scope of potential topics and the short timetable, the project team had to narrow down their focus. In doing so, the team have attempted to address topical issues while trying to avoid overlap with recent and prospective work by international financial committees and working groups. The theme linking all four papers is that of the provision of safety nets (lender of last resort (LOLR) and deposit insurance) and the promotion of
market discipline. The papers have focused on developed countries but the issues raised are relevant to all countries in varying degrees and the papers have attempted to draw out the relevance for different types of economies.

Farouk Soussa’s paper focuses on “too big to fail” institutions and whether they take on additional risk and whether they have a competitive advantage. Liisa Halme’s paper looks at bank corporate governance as a way of promoting market discipline. Indrek Saapar and Farouk Soussa’s paper looks at conglomerisation and the issues raised for the provision of LOLR and deposit protection. And Christian Hawkesby’s paper looks at institutional arrangements and in particular how one might assess the pros and cons of establishing a consolidated supervisor outside of the central bank.

Juliette Healey
Adviser, Financial Stability
Centre for Central Banking Studies
Authors

Liisa Halme is a lawyer by training and a Senior Adviser in the financial Markets Department at the Bank of Finland. Christian Hawkesby is an economist in the Financial Markets area of the Reserve Bank of New Zealand. Indrek Saapar is a banking supervisor by training and works as an expert in the Policy Division of the Bank of Estonia. Farouk Soussa is an economist working in the Regulatory Policy Division within the Financial Stability wing of the Bank of England. The project was undertaken, and these papers produced, under the guidance of Juliette Healey, Adviser, Financial Stability, at the Centre for Central Banking Studies, Bank of England.

Acknowledgements

First and foremost, our thanks go to the central banks who collaborated in this project by kindly agreeing to release the authors to spend nearly three months at the Centre for Central Banking Studies in London. With their support this was a truly international collaborative effort. We are also particularly grateful to Professor David Llewellyn of the Economics Department at Loughborough University and to Bill Allen, Deputy Director of the Financial Market Operations area of the Bank of England. They acted as discussants at the conference held on 10 December 1999 where these papers were presented, and their comments were invaluable. The conference discussion was lively and generated additional useful suggestions and observations - we are grateful to all those who attended. Many others provided additional comments on earlier drafts of the papers, to whom each author has given their own personal thanks in their papers.

As part of this project, Chang Shu provided research support, Karen Corbin administrative support and Lucy Clary secretarial support. Our thanks go to all of them.

During the September 1999 workshop, Bill Allen (Bank of England), Alastair Clarke (Executive Director, Bank of England), Phil Davis (Bank of England), Asli Demirguc-Kunt (World Bank), Peter Fisher (Federal Reserve Bank of New York), Michael Foot (Managing Director, Financial Services
Authority), Professor Charles Goodhart (Monetary Policy Committee, Bank of England), Peter Hayward (International Monetary Fund), Andy Haldane (Bank of England), Glenn Hoggarth (Bank of England), Dr Rosa Lastra (University of London), Carl-Johan Lindgren (International Monetary Fund), Professor Peter Sinclair (Birmingham University, and now Director of CCBS), Paul Tucker (Bank of England), Sushil Wadhwani (Monetary Policy Committee, Bank of England), Steve Weisbrod and Professor Geoffrey Wood (City University and Bank of England) gave insightful presentations on specific financial stability issues that set the stage for our follow-up project. At the Bank of England Professor Charles Goodhart and Professor Richard Brealey gave helpful guidance during the early stages of the project.

We are also grateful to the other central bank participants attending the one week workshop from whose views and experiences we benefited; Ahmad Hizzad Baharuddin (Bank Negara Malaysia), Charity Dhliwayo (Reserve Bank of Zimbabwe), Olcay Emir (Central Bank of the Republic of Turkey), Andrea Enria (European Central Bank), Ibrahim Ghoobrial (Central Bank of Egypt), Marianne Gizycki (Reserve Bank of Australia), Pauline Green (Bank of Jamaica), Reint Gropp (European Central Bank), Nicolas Karydas (Central Bank of Cyprus), Tomas Kvapil (Czech National Bank), Nicholas Kwan (Hong Kong Monetary Authority), Per Lilja (Bank of Sweden), Katalin Mero (Bank of Hungary), Michael Patra (Reserve Bank of India), Roelf du Plooy (South African Reserve Bank), Henriette Prast (De Nederlandsche Bank NV), Yutaka Soejima (Bank of Japan), Tomaz Toplak (Bank of Slovenia) and Lenore Wade (Eastern Caribbean Central Bank).

The views expressed in this book do not necessarily reflect those of the Bank of England or any individual acknowledged within. All errors remain the sole responsibility of the authors.
Too Big To Fail: 
Moral Hazard and Unfair Competition?

Farouk Soussa, Bank of England*

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*This paper was written while at the Centre for Central Banking Studies, Bank of England. The author would like to thank David Llewellyn, Glenn Hoggarth, Simone Varotto and Bill Allen for helpful comments and suggestions. The opinions in this paper are those of the author and not necessarily those of the Bank of England.
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Appendix 1. Further evidence of bank risk from the UK
1. Introduction

The term ‘Too Big To Fail’ (TBTF) was coined by the United States Comptroller of the Currency to describe the eleven largest US banks in the wake of the Continental Illinois crisis in 1984. It put into words the belief that the failure of certain large banks would have a sufficiently significant (negative) impact on the financial system and the economy as a whole such that these failures would be intolerable to the authorities. The result is an implicit guarantee by the authorities on the continued survival of certain large banks.

Many observers have criticised this guarantee on the basis that it creates moral hazard that results in perverse incentives for large banks to take greater risk. This is because if risk is not costly to the bank (i.e. the downside of risk is not present) banks will take on risk in order to capture the upside (higher reward). Another criticism of this guarantee is that it gives large banks an unfair advantage over their competitors. This may be because large banks can afford to pursue a higher risk/reward strategy than their smaller competitors as they are implicitly insured against the downside of any risk they assume. Furthermore, the advantage may come from the implicit guarantee given to the creditors of large banks, lowering their cost of funding relative to that of smaller banks.1

While these arguments are intuitively appealing, there is little empirical evidence on the subject. Nonetheless, fears of greater risk taking in banks that receive official assistance have partly motivated such policies as ‘constructive ambiguity’ and limits in the scope of official assistance (e.g., the Federal Deposit Insurance Corporation Improvement Act – FDICIA 1991).

This paper evaluates these arguments conceptually and empirically. Section 2 provides the theoretical rationale for the TBTF doctrine and evidence that, despite efforts by the authorities to create uncertainty over whether official support would be forthcoming, certain banks are perceived by the markets to be TBTF. Section 3 examines the funding subsidy that TBTF banks have vis-à-vis smaller banks. Section 4 addresses the question ‘do TBTF banks take more risk?’ The moral hazard argument is presented in favour of the proposition, while arguments such as diversification and investment opportunities are presented against it. Some evidence on bank risk taking

1 This also lowers the cost of funding of large banks relative to non-banks who are typically not subject to such guarantees.
and size is presented. Finally, section 5 provides some conclusions and policy implications.

2. Are some banks TBTF?

2.1 The rationale for TBTF

The doctrine of TBTF reflects the recognition that sufficient disruption to the smooth operation of the financial system can be triggered by the failure of a single bank, as opposed to a group of banks or some macro-economic shock. In other words, a bank that is TBTF is one whose failure, due to some idiosyncratic problem, would disrupt the financial system in the absence of any other adverse shock. These disruptions are costly as they prevent the economy from benefiting from functions provided by the financial system, which include the efficient allocation of resources, the provision of the payment system, and the efficient pricing of financial risk (De Bandt and Hartmann, 1998). The question is, therefore, how can the failure of a single bank create systemic disturbances?²

One channel by which systemic disruptions can be generated by the failure of a large bank is through the bilateral exposures that other banks would have to it. Under normal circumstances, the larger a bank is, the greater the exposure of other banks to it. Empirical evidence supporting this hypothesis is limited by a lack of data, but Michael (1998) finds that interbank lending exposures are significant in the United Kingdom, particularly for the large banks that provide payment and settlement services.³

Another channel increasingly recognised as a source of systemic risk is that of exposures via financial markets. The failure of a large bank with a significant presence in a given market may cause liquidity to dry up in that market if the failed bank is forced to unwind its substantial position rapidly. Other financial institutions with exposures to that market will consequently experience liquidity problems. This source of exposure is not unique to banks, as the LTCM crisis illustrates, but is likely to become increasingly significant in the banking industry as banks become more involved in trading activity.

² In reality, some of the arguments that follow apply to the failure of a large non-bank financial institution as well. However, this paper will concern itself with banks only.
³ Risks arising from bilateral exposures via payment and settlement systems, while significant in the past, have been largely mitigated with the advent of Real Time Gross Settlement (RTGS) systems (see Bank of England (1989) and Hills and Rule (1999)).
The failure of a large bank may also hamper the smooth functioning of the financial system by disrupting the credit creation process. As Diamond (1984) argues, banks extend credit based on private information and this contributes to the development of relationships between the bank and borrower.\(^4\) If that relationship is broken, it will take time for borrowers to build relationships with alternative banks. This is especially true of borrowers for whom public information is not readily available, such as small firms and individuals, and who therefore cannot turn to capital markets as an alternative source of funding. Because larger banks are likely to have a greater number of borrowers than small banks, and thus a greater percentage of the credit market, the failure of large banks will cause significant disruptions to the credit creation process.

Finally, systemic disruptions can be generated by the failure of a large bank if it raises doubts in the minds of depositors at other banks over the soundness of those banks, causing them to run. These doubts may be justified, with depositors perceiving similarities between the failed bank and their own (Chari and Jaganathan, 1988; Kaufman, 1994)). Alternatively, they may be sparked by pure panic (Diamond and Dybvig, 1983). In any case, given that the failure of large banks would be more visible to the public, the likelihood of contagious runs on other banks, and panics in particular, may be higher for large banks than small banks.

All these are ways in which the failure of a single large bank may potentially result in significant disruption to the financial system and provide a rationale for the TBTF doctrine. However, authorities do not announce their willingness to support insolvent banks that they consider TBTF. Rather, they normally pursue a policy of *ex ante* ‘constructive ambiguity’ about which banks, if any, would receive support if they got into trouble. Although ambiguity may create uncertainty about the likelihood of support for medium to small-sized banks, it does little to deter markets from perceiving the largest banks as being TBTF. Evidence of this is presented below.

### 2.2 TBTF – evidence from the markets

Evidence that certain banks are expected to be bailed out by the authorities should they run into trouble is quite easy to find. Fitch IBCA, the rating

\(^4\) For more on relationship banking, see, for example, Greenbaum and Venezia (1985), Diamond, (1989), Greenbaum, Kanatas, and Venezia (1989), Sharpe (1990), Rajan (1992) and Greenbaum and Thakor (1995).
agency, explicitly expresses the likelihood of official support for the banks it rates. It does so by assigning a ‘support rating’, which has a numerical value between 1 and 5, 1 being the highest probability of support and 5 the lowest. Table 1 summarises Fitch IBCA’s bank ratings for selected countries.

Note that countries in which ‘supported’ banks’ assets make up the highest percentage of the total banking system’s assets (>70% in Australia, Canada, Finland, Japan, Netherlands and Sweden – these are highlighted in the table) are countries with highly concentrated banking systems. The exception to this pattern is Japan in which, despite a relatively low concentration ratio, ‘supported’ banks hold almost three quarters of the total assets in the banking system. This may reflect the Japanese authorities generous treatment of troubled banks in recent times, although there are insufficient data to test this proposition.

Overall, since Fitch-IBCA rates mainly those banks that issue securities, and since these tend to be the larger banks, it is perhaps unsurprising that a particularly high percentage of rated banks received support ratings of 1 or 2 (i.e., they were expected to be bailed out by authorities). All the same, these data demonstrate, despite efforts by the authorities to be ‘constructively ambiguous’, markets do nevertheless have expectations that official support would be forthcoming for certain institutions.

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5 A support rating of 3 is assigned to receive those banks who are likely to ‘unofficial’ support, e.g. from a parent bank or affiliate.
6 Although no data are available for Australia and Finland from this source, these are both countries known to have highly concentrated banking systems.
Table 1. Fitch IBCA bank ratings from selected countries (June 1999)

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Banks</th>
<th>Number of Rated Banks</th>
<th>(% supported)</th>
<th>Total number of Banks</th>
<th>(% supported)</th>
<th>Supported banks’ assets as % of all assets in banking system</th>
<th>Concentration ratios (share of top five (ten) financial institutions of total financial assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>9</td>
<td>12</td>
<td>(75)</td>
<td>83</td>
<td>(11)</td>
<td>82</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>7</td>
<td>8</td>
<td>(88)</td>
<td>119</td>
<td>(6)</td>
<td>-</td>
<td>57(74)</td>
</tr>
<tr>
<td>Canada</td>
<td>6</td>
<td>6</td>
<td>(100)</td>
<td>80</td>
<td>(8)</td>
<td>85</td>
<td>78(93)</td>
</tr>
<tr>
<td>Germany</td>
<td>23</td>
<td>28</td>
<td>(82)</td>
<td>2337</td>
<td>(1)</td>
<td>55</td>
<td>17(28)</td>
</tr>
<tr>
<td>Denmark</td>
<td>3</td>
<td>4</td>
<td>(75)</td>
<td>210</td>
<td>(1)</td>
<td>34</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>13</td>
<td>32</td>
<td>(41)</td>
<td>172</td>
<td>(8)</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>Finland</td>
<td>4</td>
<td>4</td>
<td>(100)</td>
<td>12</td>
<td>(25)</td>
<td>96</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>12</td>
<td>32</td>
<td>(31)</td>
<td>618</td>
<td>(2)</td>
<td>53</td>
<td>57(73)</td>
</tr>
<tr>
<td>Ireland</td>
<td>2</td>
<td>7</td>
<td>(29)</td>
<td>55</td>
<td>(4)</td>
<td>64</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>9</td>
<td>36</td>
<td>(25)</td>
<td>710</td>
<td>(13)</td>
<td>(≤38)</td>
<td>25(38)</td>
</tr>
<tr>
<td>Japan</td>
<td>31</td>
<td>35</td>
<td>(89)</td>
<td>198</td>
<td>(16)</td>
<td>74</td>
<td>31(30)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>7</td>
<td>8</td>
<td>(88)</td>
<td>80</td>
<td>(9)</td>
<td>82</td>
<td>79(88)</td>
</tr>
<tr>
<td>Norway</td>
<td>6</td>
<td>7</td>
<td>(86)</td>
<td>43</td>
<td>(14)</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>Sweden</td>
<td>6</td>
<td>6</td>
<td>(100)</td>
<td>26</td>
<td>(23)</td>
<td>(≥90)</td>
<td>90(93)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
<td>57</td>
<td>(16)</td>
<td>313</td>
<td>(3)</td>
<td>65</td>
<td>47(68)</td>
</tr>
</tbody>
</table>

Source: Fitch-IBCA and BIS (1999)

3. Do TBTF banks have an unfair competitive advantage?

3.1 The arguments

One criticism of TBTF is that it gives large banks an unfair advantage over their competitors for two possible reasons. First, because TBTF banks can afford to be more risky, they will achieve higher returns. Whether or not this is true is examined in the next section and discussion of this argument is therefore reserved until later.

The second possible reason is that the unfair advantage comes from the implicit guarantee given to the creditors of large banks, lowering the cost of funding relative to that of small banks, and thus increasing their profits. Figure 1 illustrates this. \( S_L \) and \( S_{D1} \) are the supply of loans and deposits respectively in a perfectly competitive (subsidy-free) banking industry, while \( D \) is the demand for funds. Under such conditions, the equilibrium supply of loans and deposits is \( M \), with a lending rate of \( i_1 \) and a deposit rate of \( i_0 \). The difference between these two rates, \( \pi \), is the profit of the bank. The

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7 All figures are taken from Fitch-IBCA and are only indicative.
effect of a TBTF subsidy, according to the above argument, is that it lowers the cost of funding, shifting the supply of deposits outwards to $S_{D2}$. This, as the figure shows, means that firms with a lower cost of funding will have an ‘abnormal’ profit of $\pi^*$. 

**Figure 1. The effect of a Funding Subsidy on Bank Profit**

3.2 The evidence

A few studies in the United States have examined the ‘wealth effects’ of TBTF (see, for example, Angbazo and Saunders (1996)). They test the hypothesis that TBTF is reflected in the value of the banks (share price) as it reduces the cost of funding and therefore increases the profitability of the bank. These studies have found a positive relationship between bank size and share price, providing indirect evidence that TBTF does indeed raise profitability by lowering funding costs. O’Hara and Shaw (1990), for example, find that the largest US banks experienced positive adjustments in their share-price immediately after the announcement by the Comptroller of
the Currency in 1984 that certain banks were too big to fail. There is little literature, however, which directly measures the alleged funding subsidy implied by TBTF, particularly for European banking industries.

Here, we attempt to provide such evidence using a sample of 120 banks from six countries: France, Italy, the United Kingdom, Germany, Spain and Japan. We compare two Fitch-IBCA measures of bank credit risk: ‘Individual Ratings’ and ‘Long-Term Credit Ratings’.

According to Fitch-IBCA’s definitions, ‘Individual Ratings’ assess how a bank would be viewed if it were entirely independent and could not rely on external support. They are designed to assess a bank’s exposure to, appetite for, and management of risk, and thus represent Fitch-IBCA’s view on the likelihood that it would run into significant difficulties such that it would require support. They analyse a bank’s profitability and balance sheet integrity, franchise, management, operating environment, and prospects. Individual ratings are thus a proxy measure of the market’s perception of the risk an individual bank takes on. Individual ratings are herein referred to as standalone ratings.

‘Long-Term Credit Ratings’ are an overall indicator of the likelihood that an investor will get his or her money back in accordance with the terms in which he or she invested. They are thus a measure of overall credit risk, and include both individual risk and the likelihood that a bank will get support in the event of a crisis. Long-term credit ratings will be referred to as inclusive ratings in the remainder of this paper.

In principle, therefore, the difference between a bank’s standalone ratings (which, by definition, excludes the possibility of support) and inclusive rating should reflect the value of official support.

Within the overall data set consisting of 120 banks, we examine two groups: TBTF banks (with a support rating of 1 or 2 – there are 76 such banks in the sample) and ‘small banks’ (with a support rating of 4 or 5 – there are 44 of these in the sample). Figure 2 shows the relationship between standalone ratings and inclusive ratings for these two groups of banks. A regression line (using ordinary least squares) has been drawn separately for each group.

---

8 To ensure that the difference reflects the value of official support, banks with support ratings of 3 (reflecting the possibility of support from a parent company etc.) were excluded from the sample.
Figure 2. Individual ratings and Long Term Credit rating for Small and Big Banks

The regression lines are significant and take the form:

<table>
<thead>
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<th></th>
<th>Small Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
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<tr>
<td>Intercept</td>
<td>2.546763</td>
<td>0.618384</td>
<td>4.118414</td>
</tr>
<tr>
<td>X Variable</td>
<td>0.748201</td>
<td>0.155818</td>
<td>4.801759</td>
</tr>
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<td>1</td>
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<td></td>
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<table>
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<tr>
<th></th>
<th>TBTF Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
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<tr>
<td>Intercept</td>
<td>0.883379</td>
<td>0.369231</td>
<td>2.392485</td>
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<td>X Variable</td>
<td>0.597811</td>
<td>0.060064</td>
<td>9.952948</td>
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<tr>
<td>1</td>
<td></td>
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</tbody>
</table>

What Figure 2 and these regressions show is that for a given level of bank risk (standalone rating), TBTF banks receive a higher inclusive rating and thus, in principle, a lower cost of funding. For example, a small bank with a standalone rating of C would, on average, receive an inclusive rating of BBB+, while a TBTF bank of the same standalone rating would receive a higher inclusive rating of A+. Based on this rough calculation, the implied subsidy for a TBTF bank over a small bank of a standalone rating of C is three credit notches.  

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9 For example, one notch is equivalent to the difference between AA+ and AA or AA and AA-.
More generally, we can calculate the average spread between inclusive and standalone ratings (subsidy) for small banks and TBTF banks, and how this spread varies across countries. This can be done by calculating a series of regressions, summarised in Table 2.

Table 2. Regression results – spreads between ratings

<table>
<thead>
<tr>
<th>Panel a</th>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tr>
<td></td>
<td>C</td>
<td>1.431818</td>
<td>0.209891</td>
<td>6.821721</td>
<td>0.0000</td>
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<tr>
<td></td>
<td>TBTF</td>
<td>2.949761</td>
<td>0.263741</td>
<td>11.18431</td>
<td>0.0000</td>
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<th>Panel b</th>
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<th>Std. Error</th>
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<td></td>
<td>C</td>
<td>2.977778</td>
<td>0.202113</td>
<td>14.73325</td>
<td>0.0000</td>
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<td>T30</td>
<td>1.288889</td>
<td>0.404225</td>
<td>3.188540</td>
<td>0.0018</td>
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<table>
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<th>Panel c</th>
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<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<td></td>
<td>T30</td>
<td>4.266667</td>
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<td>13.89263</td>
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</tr>
<tr>
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<td>17.19126</td>
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<tr>
<td></td>
<td>B30</td>
<td>1.466667</td>
<td>0.307117</td>
<td>4.775592</td>
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</table>

<table>
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<th>Panel d</th>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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<tbody>
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<td>DE</td>
<td>5.600000</td>
<td>0.284786</td>
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<td></td>
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<td>3.800000</td>
<td>0.450286</td>
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<td></td>
<td>IT</td>
<td>2.863636</td>
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<td></td>
<td>JAP</td>
<td>3.823529</td>
<td>0.345353</td>
<td>11.07135</td>
<td>0.0000</td>
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<td>6.180549</td>
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<td>2.733333</td>
<td>0.367657</td>
<td>7.434471</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The dependent variable in all regressions in Table 2 is the spread between standalone and inclusive ratings for each bank.\(^{10}\) Panel a shows that this spread is positively correlated with TBTF banks (where TBTF is a dummy variable), implying, as expected, that TBTF banks have a greater subsidy.

\(^{10}\) These were calculated by linearly converting the alphabetical ratings scale into a numerical one.
The coefficient on the TBTF dummy is interpreted as the average spread for TBTF banks over small banks i.e., all other banks in the sample. This spread is roughly three credit notches. This supports the earlier observation that a ‘small’ and TBTF bank of standalone rating of C would get an inclusive rating of BBB+ and A+ respectively.

Panels b and c examine whether size is a factor in determining the subsidy received. Panel b shows that the top 30 banks (by scaled asset size\textsuperscript{11}) receive a subsidy over and above the rest of the banks, equivalent to approximately one credit notch. However, panel c shows that this subsidy relative to the smallest 30 banks in the sample (b30) is closer to three credit notches. These results imply that ‘size matters’.

Panel d looks at the average spread by country using a series of country dummies. The coefficients on the dummies are interpreted as the average subsidy in notches. It is interesting to note that the greatest subsidy is expected in Germany. This is perhaps unsurprising given the high proportion of German banks that are state-owned. Also high in terms of subsidy are France and Japan, possibly reflecting these countries’ lower threshold of tolerance for bank failure.

The above is evidence of how spreads between standalone and inclusive ratings vary according to various factors. But how does one interpret the subsidy of three credit notches that TBTF banks have over small banks, for example? In other words, what does it mean, in terms of cost of funding, to have an inclusive rating three notches higher than a competitor? To answer this question, we calculate the yields on bonds implied by the historical default probabilities of different ratings classes, based on the approach developed by Jarrow, Lando and Turnbull (1997).

That is, we assume the value of a bond to be

$$\text{Present Value of Bond} = (p)(\delta)(1/RB^n) + (1-p)(1/RB^n)$$

Where $p$ is the probability of default, $\delta$ is the recovery rate of assets given default, $RB$ is the return on risk-free debt, and $n$ is the maturity. We use the historical probabilities of default\textsuperscript{12} for each of the inclusive ratings categories, holding $\delta$ and RB at 50% and 7% respectively, and calculate the value of the bond (also interpreted as the discounted value of 1 unit of

\textsuperscript{11} To account for differences in country size, assets of banks were scaled such that the largest bank in each country were given the same nominal asset size.

\textsuperscript{12} Using the average cumulative default rates (percent) for 1920-1999 calculated by Moody’s.
investment), from which we can then calculate the implied yield. The results are summarised in Table 3.

Table 3. Implied ratings subsidy

<table>
<thead>
<tr>
<th>Rating</th>
<th>Default Probability-5yr</th>
<th>Default Probability-10yr</th>
<th>Default Probability-15yr</th>
<th>Default Probability-20yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>0.002</td>
<td>0.0109</td>
<td>0.0189</td>
<td>0.0238</td>
</tr>
<tr>
<td>AA</td>
<td>0.0097</td>
<td>0.031</td>
<td>0.0561</td>
<td>0.0675</td>
</tr>
<tr>
<td>A</td>
<td>0.0137</td>
<td>0.0361</td>
<td>0.0613</td>
<td>0.0747</td>
</tr>
<tr>
<td>BBB</td>
<td>0.0351</td>
<td>0.0792</td>
<td>0.1146</td>
<td>0.1395</td>
</tr>
<tr>
<td>BB</td>
<td>0.1004</td>
<td>0.1905</td>
<td>0.2595</td>
<td>0.3082</td>
</tr>
<tr>
<td>B</td>
<td>0.2089</td>
<td>0.319</td>
<td>0.3917</td>
<td>0.437</td>
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</tbody>
</table>

Discounted value of 1 pound of investment

<table>
<thead>
<tr>
<th>Rating</th>
<th>Discounted value of 1 pound of investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>0.712 0.506 0.359 0.255</td>
</tr>
<tr>
<td>AA</td>
<td>0.710 0.500 0.352 0.250</td>
</tr>
<tr>
<td>A</td>
<td>0.708 0.499 0.351 0.249</td>
</tr>
<tr>
<td>BBB</td>
<td>0.700 0.488 0.342 0.240</td>
</tr>
<tr>
<td>BB</td>
<td>0.677 0.460 0.315 0.219</td>
</tr>
<tr>
<td>B</td>
<td>0.639 0.427 0.291 0.202</td>
</tr>
</tbody>
</table>

Annual interest rate

<table>
<thead>
<tr>
<th>Rating</th>
<th>Annual interest rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>7.02% 7.06% 7.07% 7.06%</td>
</tr>
<tr>
<td>AA</td>
<td>7.10% 7.17% 7.20% 7.18%</td>
</tr>
<tr>
<td>A</td>
<td>7.15% 7.20% 7.22% 7.20%</td>
</tr>
<tr>
<td>BBB</td>
<td>7.38% 7.43% 7.42% 7.39%</td>
</tr>
<tr>
<td>BB</td>
<td>8.11% 8.08% 8.00% 7.90%</td>
</tr>
<tr>
<td>B</td>
<td>9.39% 8.88% 8.57% 8.33%</td>
</tr>
</tbody>
</table>

The lower panel allows us to convert credit notches into actual interest rates. In particular, it allows us to interpret the subsidy of three credit notches that TBTF banks have over small banks. Three credit notches is the difference between a letter rating category, for example, a small and TBTF bank of a given standalone ratings could expect an inclusive rating of BBB and A respectively. If such banks were issuing debt of a 5-year maturity, the small
bank would be paying 23 basis points more in interest than the large bank (7.38%-7.15%). This is the nominal value of the TBTF subsidy.

Figure 3 shows the yields for the different maturities graphically. It is clear from this figure that the subsidy received by TBTF banks is greater for lower maturity debts than for longer maturity.

**Figure 3. Implied Yields for Different Ratings Categories and Maturities**

![Graph showing implied yields for different ratings categories and maturities](image)

4. **Do TBTF banks take more risk?**

4.1 **The arguments for and against**

It is often argued that TBTF encourages moral hazard for large banks, leading to perverse incentives for such banks to take greater risk. These arguments are twofold.

First, large banks take advantage of the implicit elimination of downside risk implied by TBTF. As argued by the former Deputy Governor of the Bank of England, and now Chairman of the UK Financial Services Authority, Howard Davies, “If the state guarantees the existence of individual banks, that can create incentives which encourage irresponsible behaviour. The
prize for taking excessive risk may – if things go well – be excess returns (and telephone number bonuses) while, if things turn out badly, the state steps in and picks up the tab. This is known as a one-way bet” (Davies, 1997).

Second, TBTF implicitly insures depositors (those which are not explicitly insured by deposit insurance) thereby eliminating their incentive to monitor the bank. This allows banks, it is argued, to take advantage of the one-way bet described in the preceding paragraph.

To assess these arguments, it is first important to clarify for whom the moral hazard is allegedly created. In other words, which person or persons are both given incentives to take on more risk and have the ability to do so. These are clearly those people who control the bank: bank managers. When speaking of moral hazard and TBTF, therefore, one must bear in mind that the question is whether bank management has the inclination or ability to take excessive risk.

The above arguments, while suggesting that managers at big banks may choose riskier portfolios than small banks ceteris paribus, do not necessarily imply that big banks in practice have greater portfolio risk than small banks. This is because big banks, by virtue of their size, benefit from factors that reduce the level of their portfolio risk vis-à-vis small banks. The most obvious of these is that bigger banks are likely to be better diversified than small banks due to economies of scale. In addition to this, big banks benefit from better investment opportunities: small banks, with limited funds to invest, may have investment opportunities that are limited to small businesses and individuals (see, for example, Strahan and Weston (1998) and Jayaratne and Wolken (1998)). Since such lending is typically more risky than that to larger corporations (which big banks have the funds to lend to) this suggests that small banks may have inherently riskier portfolios.

Given identical diversification and investment opportunities, however, it is still not obvious that large banks will behave in the way suggested by the above arguments. If regulators price risk, so that greater risk is reflected in higher required capital for example, the incentive to take greater risk may be reduced. Monitoring of risk by the authorities (supervision) also limits the ability of banks to take greater risk.

Failing this, if a large bank encounters problems arising from poor management of risk, the authorities would normally intervene in favour of
the bank only on the condition that management and shareholders are punished, the former often being barred from working in the financial services industry for a certain period. An analogy could be made to a drunken taxi driver: rather than impounding the taxicab – reducing the welfare of all taxi patrons – the authorities punish the driver while putting the taxicab into another’s more competent hands. The incentives for bank managers to take excessive risk are thus reduced, despite their bank’s guaranteed survival.

The effect of TBTF on the riskiness of large banks will depend, therefore, on the significance of the risk-reduction benefits of diversification and better investment opportunities, and whether or not the authorities are able to implement policies that could counter the incentives to take greater risk.

4.2 The evidence

Although a considerable amount has been written on the moral hazard effects of lender of last resort (LOLR) and TBTF, little empirical work has been carried out on the subject. What literature does exist suggests that there is no apparent correlation between bank size and overall risk, although there is a correlation between bank size and the composition of risk. There is a tendency for larger banks to have higher risk components in their portfolio, but these risks are neutralised through diversification benefits. Large banks thus capture gains in diversification through higher reward rather than lower risk (see Berger, Demsetz and Strahan (1999), Demsetz and Strahan (1997, 1995a, 1995b)).

Market observations appear to be consistent with the view that, despite being more likely to be bailed out than smaller banks, large banks do not take greater risk. Panel A of Table 4 below shows the results of a regression examining the relationship between TBTF banks and standalone ratings, the proxy for market perception of individual risk. A positive correlation was found, meaning TBTF banks have a lower standalone rating on average. However, there was a problem with the sample in the sense that all Japanese banks have a support rating of 1 or 2 (TBTF) and all have a low standalone rating due to the current state of the Japanese banking system. This biases the sample, and to correct for this we include in the regression in panel B a Japan dummy. This has the effect of making the relationship between TBTF banks and standalone ratings statistically insignificant. While this is interesting, Fitch IBCA’s assessment of individual risk is made privately and is partly subjective and it would be prudent to examine a more objective
measure of bank risk-taking to assess whether or not this is consistent with Fitch IBCA’s view.

**Table 4**

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Standalone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A</strong></td>
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<tr>
<td>Variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>C</td>
<td>3.545455</td>
</tr>
<tr>
<td>TBTF</td>
<td>1.204545</td>
</tr>
<tr>
<td><strong>Panel B</strong></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
</tr>
<tr>
<td>C</td>
<td>3.545455</td>
</tr>
<tr>
<td>JAP</td>
<td>3.352941</td>
</tr>
<tr>
<td>TBTF</td>
<td>0.454545</td>
</tr>
</tbody>
</table>

To arrive at a more objective measure of bank risk taking, the ratio of loan loss provisions over total loans was considered for the sample above. This ratio gives a good approximation of bank portfolio risk for two reasons. First, loan losses, although partly reflecting a bank’s investment opportunities, also reflect a bank’s investment decisions and risk appetite (Walter, 1991). Second, the ratio picks up changes in the profitability of the banks, so that a measure of earnings is included. Panel A of Table 5 below shows that the relationship between whether a Bank is TBTF and the ratio of loan loss provisions over loans is statistically insignificant. When the Japan dummy is included, for reasons mentioned earlier, the relationship becomes even less statistically insignificant.

**Table 5**

<table>
<thead>
<tr>
<th>Dependent Variable: Loan Loss Provisions / Loans</th>
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<tbody>
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<td><strong>Panel A</strong></td>
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<td><strong>Panel B</strong></td>
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<td>Variable</td>
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<td>C</td>
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<tr>
<td>JAP</td>
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<td>TBTF</td>
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</table>
Finally, evidence on loan losses of banks in the United Kingdom based on quarterly supervisory reports between 1989-1995 (see appendix) confirms the view that asset quality in large banks is at least no worse than that in small banks.

Overall, the evidence presented in this section is intended to show that, in practice, large banks do not appear to take on more risk than small banks. However, it is not intended to refute the claim that there is a moral hazard problem with respect to the TBTF doctrine.

First, the evidence does not show that large banks take on less risk than they would in the absence of TBTF. It could be that in the absence of TBTF, large banks would be less risky than small banks because of diversification etc. but this is impossible to verify.

Second, the behaviour of large banks implied by the evidence above suggests that the mitigating factors to the theoretical threat of greater risk taking (described in section 4.1) are significant. Moral hazard may yet be a problem in the absence of such policies.

5. Policy issues and conclusions

In most countries, the threat of moral hazard arising from a TBTF policy has been heeded by the authorities, who try to minimise the reach of the safety net while maintaining a degree of ‘constructive ambiguity’ in its use. The evidence presented above suggests that such policies may be motivated by an over-emphasis on the negative incentive effects for large banks that TBTF may have, while not taking enough account of mitigating factors such as economies of scale and measures that the authorities may take to counter these incentives.

To begin with, constructive ambiguity does not appear to work – markets still believe that support would be forthcoming for certain large banks should they encounter difficulties. Moreover, constructive ambiguity appears to be unnecessary, since despite there being a general belief that certain banks will be supported, these banks do not behave in the feared manner of taking on excessive risk. However, while this suggests that the authorities could, in principle, do away with constructive ambiguity and state their willingness to support certain banks, in practice this would be difficult. This is because the notion of a systemically important bank is context-dependent:
a bank that is important in one set of circumstances may not be in another. This is especially true of ‘medium-sized’ banks, whose systemic importance is marginal (Goodhart and Huang, 1999). Ambiguity over precisely which banks will be supported, therefore, may be a result of uncertainty on the part of the authorities themselves and not their deliberate desire to create uncertainty.

5.1 Levelling the playing field

Be this as it may, TBTF does appear to lower the funding cost for larger banks and thus creates an uneven playing field in banking. TBTF therefore reduces competition and thus efficiency, exemplifying the general trade-off official intervention in the financial sector presents between efficiency and financial stability.

To level the playing field, one of three policies can be adopted. First, authorities can commit to a policy of not bailing out any banks, regardless of their size or systemic importance. Second, the safety net can be extended to all banks. Finally, large banks could be charged a tax that would reflect their systemic importance and compensate for the subsidy they receive because of this.

No bailouts

If authorities believes that bank failures may have systemic consequences, a policy of a priori commitment to not bailing out any banks indicates that authorities have placed a great deal of weight on competitiveness and efficiency within the financial system, and less weight on stability.

Of course the premise that bank failures create instability is often questioned. The ‘free banking’ school, which argues for a complete cessation of official intervention in the financial sector, would argue that bank failures do not create externalities or knock-on effects over and above those created by the failure of any non-financial firm of similar size. Moreover, they argue that market mechanisms for effectively disciplining banks would have evolved that would have reduced the likelihood of bank failure vis-à-vis the usual current system of intervention.13

However, arguments such as those outlined earlier in Section 4.1, which maintain that bank failures can lead to financial instability, are more

13 See Dowd (1996) for some views on free banking.
generally accepted. In this context, the desire to eliminate bailouts is normally balanced with measures that would likewise eliminate the need to do so. In other words, ending a policy of TBTF would require that the authorities ensure the following: (i) all banks, particularly large banks, are prudently managed; (ii) their financial health is monitored at all times; (iii) should their financial health deteriorate, corrective measures be taken promptly; and (iv) if corrective measures are unsuccessful, the bank should be closed before it ‘fails’ (i.e., defaults on obligations). One regime that incorporates these requirements is that of the United States, post the Federal Deposit Insurance Corporation Improvement Act (FDICIA) (1991).

Unfortunately, not all bank failures can be avoided through regulation and supervision and, given the financial instability created by bank failures, any such system would face a time-consistency problem: authorities would find it difficult to adhere to their pre-stated commitment of not bailing out banks. FDICIA (1991), in an attempt to avoid this problem, has incorporated a clause that exempts systemically important banks from mandatory closure (see appendix).

The evidence presented in this paper questions the necessity of such a regime. Although FDICIA is also partly motivated by the desire to limit the direct financial costs of bailouts to the authorities, an important objective of its PCA provisions, and any other scheme that aims to eliminate bailouts, is to limit their moral hazard effects. Given we find no evidence of greater risk taking in large banks, and given the downside of such policies – i.e. greater risk of financial instability and/or time consistency problems in their implementation – their effectiveness and desirability is questionable.

**Extend TBTF for all**

If TBTF does not lead to greater risk taking, why not extend it to all banks? This would level the playing field in raising funds.

The caveat to such an approach is that, as argued earlier, there are three reasons why TBTF does not induce greater risk taking: (i) regulation that limits the ability of banks to take on excessive risk and/or makes risk more costly; (ii) supervision, which monitors and enforces prudential requirements; and (iii) punishment of management and shareholders should official intervention be required. Large banks, in the absence of these measures, may behave in the way predicted by the moral hazard theory. It
therefore follows that if TBTF were to be extended to all banks, these measures would have to be as well.

This requirement will not affect the first and third measures listed in the preceding paragraph. Prudential regulation applies, in principle, to all banks, regardless of their size and therefore would not need to be extended. Punishment of managers and shareholders is relatively cost less and thus would not act as a barrier to extension of the safety net. It is the second measure, supervision, which would provide an argument against allowing access to the safety net to all banks.

Supervision is costly, and recent trends suggest that best practice involves focussing supervisory efforts on those institutions whose failure would pose the greatest systemic threat. Indeed, in the United States, supervisors follow the philosophy of ‘risk-focussed supervision’, and in the United Kingdom too, large banks are monitored and supervised more closely than small banks. If the safety net was extended to all banks, without extending the closer supervision larger banks receive, smaller banks may be able to capitalise on the implicit guarantee by taking more risk. Because, in general, such close scrutiny of all banks would be extremely costly, extension of the safety net to all banks would be impractical, particularly for banking systems with a large number of small banks.

**Systemic ‘tax’ on TBTF banks**

The option of limiting the safety net to only those banks that are systemically important, in effect the TBTF doctrine currently practised in a number of countries, has advantages over the previous two options. First, it avoids the risk of systemic crises and, potentially, the time consistency problem of a policy that commits to not bailing out any banks. Second, it allows resources to be focussed on the closer supervision of large banks *vis-à-vis* small banks, which is the drawback of a comprehensive safety net. What can be done, therefore, to reduce the unfair competitive advantage big banks enjoy over small banks in such a regime?

The funding subsidy that big banks enjoy could, in principle, be neutralised by imposing greater costs on banks deemed TBTF. TBTF banks could be required, for example, to hold higher capital reserves. Since capital is both costly and a buffer to losses, such requirements would both increase large banks’ costs in line with small banks, and also decrease the likelihood that large banks would require official assistance. Alternatively, a ‘systemic tax’
on large banks could be levied, which would increase their costs as well as provide funds from which intervention costs may be recouped. The actual design of the costs imposed on large banks is an important issue that is the subject of ongoing research.

The drawback of this scheme is that it would necessitate the identification of a precise group of TBTF banks. As mentioned earlier, the notion of any given bank being TBTF is context-dependent which would make such a task difficult.

Appendix I. Further evidence of bank risk from the UK

In order to provide further evidence that large banks are no more risky than small banks, the balance sheets of 6 large UK banks (with average assets of approximately £100bn in June, 1995) and a sample of 62 small banks (with average assets of just over £200 million in June, 1995) were examined.14 Table A-1 lists some selected ratios. These results are consistent with the above evidence and contradict the notion that large banks take on more risk than small banks.

The table shows, as does Figure 5, that while both large and small banks have a bias towards holding assets in the 100% risk-weighted category (which are more risky), this bias is marginally stronger for small banks. But the more telling results are in the last four columns of Table A-1 and are graphically presented in Figure 6. These show that provisions against bad or doubtful debt (as a proportion of total loans or assets) were, on average, almost five times higher for small banks than they were for large banks in the sample period.

At first glance, the fact that these provisions were so much higher for small banks than for large banks appears to be contradictory to the results presented in Figures 3 and 4 (main text). However, one must bear in mind that the small banks examined in this last exercise are much smaller than those from the Fitch IBCA sample. It may thus be that the ‘investment opportunity’ component of loan loss provisions is more significant in Figure 6 – the banks in this sample may be so small that their lack of diversification opportunities and investment opportunities renders their assets more risky.

14 The data are based on biannual and quarterly reports for the period 1989-1995.
Unfortunately, data on banks of a similar size to those used in the Fitch IBCA sample were difficult to find.

Nevertheless, if moral hazard is as significant as much of the theoretical literature suggests, one would expect that large banks would, in pursuing higher risk loans at higher rates, have a higher proportion of bad loans in their portfolio than small banks. The evidence presented in this section suggests that this is clearly not the case.
Table A-1. Selected ratios for small and big banks

<table>
<thead>
<tr>
<th></th>
<th>%age of 10% rwa /total rwa</th>
<th>%age of 20% rwa /total rwa</th>
<th>%age of 50% rwa /total rwa</th>
<th>%age of 100% rwa /total rwa</th>
<th>Provisions / loans</th>
<th>Provisions / assets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Big</td>
<td>small</td>
<td>Big</td>
<td>Small</td>
<td>Big</td>
</tr>
<tr>
<td>Dec-89</td>
<td>0.08</td>
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<td>4.09</td>
<td>6.53</td>
<td>3.67</td>
<td>6.43</td>
</tr>
<tr>
<td>Jun-90</td>
<td>0.06</td>
<td>0.52</td>
<td>4.36</td>
<td>6.33</td>
<td>3.17</td>
<td>6.65</td>
</tr>
<tr>
<td>Dec-90</td>
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<td>4.84</td>
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<tr>
<td>Jun-91</td>
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<td>6.37</td>
<td>2.97</td>
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<tr>
<td>Jun-93</td>
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<td>8.60</td>
<td>2.75</td>
<td>8.85</td>
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<tr>
<td>Dec-93</td>
<td>0.05</td>
<td>0.78</td>
<td>5.41</td>
<td>9.38</td>
<td>2.63</td>
<td>9.57</td>
</tr>
<tr>
<td>Jun-94</td>
<td>0.07</td>
<td>0.76</td>
<td>5.67</td>
<td>10.17</td>
<td>2.48</td>
<td>9.99</td>
</tr>
<tr>
<td>Dec-94</td>
<td>0.06</td>
<td>0.89</td>
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<td>9.83</td>
<td>2.27</td>
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<tr>
<td>Jun-95</td>
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<td>0.99</td>
<td>4.96</td>
<td>10.23</td>
<td>2.09</td>
<td>10.50</td>
</tr>
<tr>
<td>6 year average</td>
<td>0.06</td>
<td>0.65</td>
<td>4.90</td>
<td>8.01</td>
<td>2.79</td>
<td>8.41</td>
</tr>
</tbody>
</table>
Figure A-1 Composition of total risk weighted assets by risk

% or risk-weighted assets

Risk Weighting

Figure A-2 Provisions against bad or doubtful debt for large and small banks as a %age of total loans and total assets

% of total assets

Date
References


Bank Corporate Governance and Financial Stability

Liisa Halme, Bank of Finland*

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4. Corporate Governance and the implementation of an incentive-based framework
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   4.2 Studies related to corporate governance
   4.3 Different practical approaches to corporate governance
   4.4 How to set incentives for bank management
      4.4.1 Responsibility and power
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   4.6 How to set incentives for supervisors
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Table 1. Key elements of efficient regulation

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1. Introduction

The fundamental premise of this paper is that the legal and supervisory framework of the financial industry matter as a precondition for stability. An effective and workable regulatory and supervisory regime is basically forward-looking and anticipatory, so that those responsible for financial system stability ensure that the regime is adapted to forthcoming, or at least current, changes in the surrounding economy. This is the aspect, which has often been given too little weight – if not forgotten entirely - during the regime shift periods that preceded banking crises in many countries.

An analysis of how the financial infrastructure may have contributed to banking crises is complicated and politically unattractive to domestic policy makers. However, while the state of a country’s financial infrastructure may not be the trigger for a banking crisis it is clear from past experience that it may affect the scope, depth and length of a crisis.

But what constitutes an effective regulatory and supervisory framework? Increasingly, global integration and the development of financial markets have put pressure on supervisors to focus their attention on the role of incentives alongside rules, as supervisory authorities struggle to keep up with the financial world they are supposed to safeguard. It is today quite widely accepted that the regulatory and supervisory framework should be based on incentives that make banks and supervisors act in a way that supports both the stability of the financial system as a whole and the interests of banks. However, there are different views on the practical features of such a framework.

The aim of this paper is to highlight possible features of an incentive-based legal, regulatory and supervisory framework that would minimise incentives for excessive risk-taking in the business of banking and compensate for moral hazard generated by the existence of safety nets. I come to the topic as a lawyer who works with economists. Much of the discussion referred to in this paper is based on developed countries, in particular Scandinavian countries and to some degree the UK.

Section 2 explains very briefly the theoretical background for incentive-based regulation, showing the link between the assumption of rationality in an individual’s behaviour and legal rules. Section 3 highlights key elements of an incentive-based approach for a legal, regulatory and supervisory framework. Section 4 introduces corporate governance as a concept for concrete policy suggestions to increase the commitment of bank management, shareholders and supervisors to their duties. Section 5
briefly explores whether and how an incentive-based corporate governance framework can be applied to less developed countries. Finally, section 6 raises the question of the role of central banks in promoting good corporate governance as part of their role in financial stability.

2. A theoretical background

In the field of law-and-economics, economics provides assumptions on the economic effects of legal rules. A normative viewpoint goes beyond the positive analysis of economic effects and takes a view in favour or against various legal rules, giving recommendations for the most effective legislation.

The paper uses the assumptions of neo-classical economic theory to explain and assess the links between the three dimensions of law: ethical, normative and realistic/factual. Thus, as regards the first dimension, economics provides assumptions on the legal structure supporting the functioning of ideal markets. These are the assumptions of natural law, which is the legal counterpart of neo-classical economics. To clarify, natural law assumes that legal rules are defined in a hypothetical situation in which no one knows which individual will be subject to which legal rule. This ensures that legislation is just, acceptable to all members of a society and in harmony with the interests of individuals and society. The counterpart to this in banking legislation is the assumption that the contents of laws should not be influenced by notions of who will be subject to the legal rule being enacted and in what way. Similarly, the aim should be to enact legal rules that are consistent with the overall objectives of banking legislation, not just with the interests of, for example, one particular banking group.

As for the second dimension, we can use economics to control the functioning of the normative level, that is the effects of current legal rules. Finally, as regards the third dimension - and most importantly from the point of view of this paper - economics provides assumptions on how those subject to regulation actually behave and what is the incentive impact of legal rules on their behaviour. The drafting of legal rules should take into account that individuals behave rationally, i.e. in their self-interest. Under perfect market conditions this kind of behaviour leads to efficient outcomes (pareto-optimality) which are in harmony with the objects of a society. In addition, this behaviour is also acceptable from an ethical point of view, but only under assumptions of ideal markets. This view can be linked to natural law and the concept of a social contract,

15 See Halme (1999a and 1999b).
which has been dealt with in depth by various contractarian schools of thought (moral, social and constitutional contractarians).

However, the real world is not ideal. One of the most analysed deficiencies is the lack of perfect information and the issue of how this affects the actions and outcomes of rationally behaving agents. This field of economic theories is called principal-agent theory. It is important to note that the assumption of rationality prevails even in the real world with information problems, but rationality now leads to outcomes that can be detrimental from a financial stability point of view. The key issue is how to build the regulatory and supervisory framework so that it allows markets to become as efficient as possible and – because conditions of ideal markets cannot be achieved – how to correct distortions caused by non-ideal conditions, such as asymmetric information and moral hazard.

The answer stems from the idea of legal rules as incentives\textsuperscript{16} for bringing about desired behaviour. However, the problem is that an individual may not automatically obey the rules, particularly if they are not in line with his self-interest and failure to comply elicits only a minor sanction. This gives rise to an obvious tension between an obligation to obey legitimate rules and rationality-based behaviour (agent as law-taker). It is also possible that the agent, for example banks, will attempt to direct the course of legal amendments (agent as lawmaker). In the latter case, if a legislator does not act ‘behind the veil of ignorance’, i.e. he does not treat all parties on an equal basis, there is a danger that particular parts of the legislation may be amended in a way that is contradictory to the objectives of the entire piece of legislation.

For the legislator, this means that in drafting law he must take into account the rationality-based behaviour of individuals. It also means that in a ‘proper’ legal framework the pursuit of self-interest can be consistent with the interests of society, or public good. In other words, the idea of complete contracts should be transferred to legal rules so that the agents\textsuperscript{17} are responsible for their actions, receive the benefits of them and take part in risk sharing. This gives us rules that are based on a clear and explicit division of responsibilities, but also explicit and exercisable rules on sanctions. This is how to maximise the agent’s commitment to compliance with the rules, and minimise the distorting effects of

\textsuperscript{16} See Kornhauser (1989).
\textsuperscript{17} The concept of agent refers to principal – agent theory. In this theory, a principal engages an agent to act on his/her behalf. Due to asymmetric information, however, the principal is unable to observe the actions of the agent entirely, and there is scope for the agent to deviate from the principal’s wishes. There are various agent–principal relations in the field of banking regulation and supervision. Legislator can act as a principal and supervisor as an agent, depositor as a principal and bank as an agent, supervisor as a principal and bank as an agent, shareholders as principals and bank management as an agent, non-executive board as a principal and management as an agent.
asymmetric information and moral hazard. This is the basis of legal rules as incentives.

However, it is worth pointing out that not all economists – let alone lawyers – share the above view on legal rules as incentives, and especially its origins in neo-classical economic theory with its concepts of rationality and individual welfare maximisation. They argue that the concept of rationality aimed at the maximisation of self-interest of an agent is about the rationality of greed. They suggest that in order to limit the pursuit of self-interest, agents must take into account moral and ethical principles. Thus, for example, incentives together with ethics form a sound basis for financial market stability.

The link between ethics (the approach of equality, justice and fairness) and financial market legislation can also be viewed from the perspective of depositor protection (consumer protection) and financial stability. These two aspects form the basic rationale for the whole of banking legislation. Thus it is also the responsibility of the banks themselves, when pursuing their self-interest, to take into account the interests of other stakeholders and the stability of financial markets as a whole, not just the interests of the shareholders. Or, as the EU Council has noted, well-functioning financial markets must strike a balance between the interests of market players, consumer protection and the need to maintain a reliable regulatory framework that has the capacity to ensure the stability of financial markets while adapting to new developments.18

**Conclusions from theory**

The key conclusion is that neo-classical economic theory can provide some guidelines for structuring an incentive-based legal, regulatory and supervisory system. The problem is that the theory does not tell you much about how to implement an institutional, legal or supervisory framework. Neither does it tell us much about the actual behaviour of particular agents because the theory itself is too rough to model individual preferences. Rather it just gives a general prediction of the behaviour of agents, taking into account the intrinsic rationality and self-interest assumption in various principal – agent relations. However, for example, Friedman defends the relevance of assumptions of neo-classical economics and emphasises the differences between a description and prescription.19

19 See Friedman (1953)
What we can take from the basis of the theory is that, when structuring the legal and supervisory framework, we have to mimic complete contracts in rule setting, and mimic ideal market conditions by exploiting market discipline. Rules and incentives need not be seen as separate and distinct tools, which is the point of view quite often taken in economic or regulatory literature. Rules should also be based on incentives. Even so, the more market discipline there is in practice, the more we can count on an endogenous (self-imposed) governance system.\(^{20}\) However, until perfect market conditions can be achieved with a self-imposed governance system – as the proponents of the free banking school have suggested – we need ex ante and externally prescribed rules by the legislator, regulator or supervisor. And we need an enforcement system for both legally binding and self-imposed rules.

3. Key elements of an incentive-based legal, regulatory and supervisory framework

To begin with, the lawmaking process should be such that it leads to a sensible and well-reasoned division of responsibilities and to sound rules on disclosure of information and competition. Furthermore, the contents of legislation should not be affected by the interests of the parties subject to regulation, unless this can be justified on stability grounds. Similarly, considerations relating to the interests of banks should not influence supervision or the decisions of regulators, if they are not compatible with the stability of the financial system as a whole.

The requirement of perfect information cannot be satisfied in the real world. For example, bank management is always better aware of the bank’s financial situation than the supervisor, shareholders, depositors or creditors. It is the ‘mission’ of the legislator to correct distortions caused by asymmetric information.

When emphasising the importance of transparency in the business of banking, we normally consider the rules concerning disclosure of information on the financial status and risk exposures of the bank. From the supervisor’s point of view transparency and disclosure requirements mean, above all, the minimisation of private information. Transparency

\(^{20}\) See e.g. Goodhart et al (1998). He concludes the following: ‘One of the key questions that arises is the extent to which behaviour is to be altered by externally imposed rules, or through creating incentives for firms to behave in a particular way. Regulation can be endogenous to financial firm (i.e. self-control) as well as exogenous. A major issue, therefore, is whether regulation should proceed through externally imposed, prescriptive and detailed rules, or by the regulator creating incentives for appropriate behaviour.’ See also Llewellyn (1999).
may also be improved by disclosing supervisory decisions and actions - positive and negative. This is discussed in section 4.6.

In the following we identify the essential features of a regulatory framework that would underpin the stability of the financial system, provide effective incentives for compliance with legal rules and commitment to the legislator’s objectives, and remedy the problems caused by information asymmetry and moral hazard. The proposal is presented in the form of a three-by-three matrix that examines three legal entities that are subject to regulation: bank management, owners and supervisors (Table 1). The key components of this three-by-three matrix are discussed below.

### Table 1. Key elements of efficient regulation

<table>
<thead>
<tr>
<th></th>
<th>Commitment</th>
<th>Market discipline</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Management</strong></td>
<td>Responsibility</td>
<td>Obligation to disclose Information</td>
<td>Efficient internal Control</td>
</tr>
<tr>
<td></td>
<td>Sanctions</td>
<td>Code of ethics</td>
<td>Efficient shareholder Control</td>
</tr>
<tr>
<td><strong>Owners</strong></td>
<td>Responsibility</td>
<td>Take-over threat</td>
<td>Legal form of Ownership</td>
</tr>
<tr>
<td></td>
<td>Sanctions</td>
<td>Efficient competition</td>
<td>Control of abuse of legal form</td>
</tr>
<tr>
<td><strong>Supervisors</strong></td>
<td>Responsibility</td>
<td>Obligation to Disclose Information</td>
<td>Supervision v. Norm-setting</td>
</tr>
<tr>
<td></td>
<td>Sanctions</td>
<td>Role as communicator</td>
<td>Control by legislator</td>
</tr>
</tbody>
</table>

The matrix is based on the assumption that efficient regulation and supervision presupposes conditions where:

- the *commitment* of both principals and agents is taken into account;
- there is *market discipline*; and
- actions of agents are subject to *control*.

It should be noted that this framework does not rely primarily on control; rather, we assume that legislation and regulation must be based first and foremost on commitment and market discipline.
Commitment refers to the existence of explicit rules concerning responsibility and sanctions in the event of non-compliance. Commitment is linked to the law-and-economics viewpoint that sees legal rules as incentives and the assumption of economic theory regarding the rational behaviour of individuals. Legal rules should pursue the ideal of perfect contracts in which the agent bears full responsibility for performing the task specified in the contract, and an effective sanction is imposed for the breach of the contract.

Market discipline refers mainly to obligations to disclose information, which depositors, investors, regulators and the markets in general can use as a reliable basis for assessing the activities of a bank and thus overseeing e.g. bank management. Here market discipline is associated with first-best solutions, by which it is endeavoured to eliminate the underlying causes of problems encountered in banking and banking regulation. The smaller the amount of private information a particular agent has, the less that agent can act in a way that is at variance with the principal’s objectives and the less is excessive risk taking. Disclosure of information imposes discipline but it is only effective if there is competition. In the absence of competition there is also a need for control.

Control is needed to support commitment and market discipline. Control would not be needed at all if a state of perfect information, one of the requirements for perfect markets, could be achieved in the real world. As this objective can never be fully met, the actions of agents must be supervised. However, control itself suffers from the very shortcoming that it is needed to deal with, namely imperfect information. Since the agent always knows more about his own actions than does the principal or his representative who exercises control, the potential for control alone to reduce moral hazard and excessive risk taking is limited.

4. Corporate governance and the implementation of an incentive-based framework

Corporate governance has become a topical issue worldwide in connection with efforts to structure and implement an efficient legal, regulatory and supervisory framework for financial markets. The banking crises of recent decades have highlighted the importance of a well-functioning legal, regulatory and supervisory framework in ex ante prevention of massive banking crises and the reduction of the resulting pain. The crises have clearly demonstrated that there can be serious negative outcomes in situations where the incentives influencing the
behaviour of legislators, regulators, supervisors or banks (management, board, shareholders) are inappropriate. Corporate governance as part of a legal and regulatory infrastructure has been seen as a device to mitigate moral hazard problems and make bank management accountable to shareholders and other stakeholders, including supervisors. The need for accountability and for appropriate incentives also applies to regulators and supervisors.

This paper looks at corporate governance from the agency perspective, seeking answers to the question of how to increase the commitment of management, owners and supervisors. However, before drawing conclusions, we shed some light on the definitions of the concept and key features of studies and concrete work on the issue of corporate governance (sections 4.1 – 4.3). I also give some concrete country-specific examples, mostly from Scandinavian countries, and explore problems related to managerial discretion, shareholder control and supervisory discretion (sections 4.4–4.6).

The view of corporate governance in this paper goes beyond just the relationship between management, board and shareholders. I am also more inclined towards the view of the likes of Jean Tirole, who argues that focusing on shareholder value alone generates biased decision-making although it is better founded, say with regard to income generation and the clear mission of management. He sees corporate governance as an arrangement by which institutions induce or force management to internalise the welfare of all stakeholders, not just shareholders. Supervisors implement rules and regulations and represent dispersed depositors. Thus they play the role of one important stakeholder in banks’ corporate governance.

4.1 Definitions of corporate governance

There is no single or simple definition of corporate governance, and certainly no definition that all countries agree on. The concept relates to the relationships between a company’s management, board, shareholders and other stakeholders. Problems related to corporate governance originate from the separation of ownership and control of a company i.e. from the agency relationships between a principal (shareholder, investor) and an agent (manager, entrepreneur). The problems of control have changed in line with the changeover from entrepreneurial capitalism via managerial capitalism to shareholder capitalism, where the interests of shareholders are represented and protected.

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22 The main features of managerial capitalism and leadership culture are as follows: ownership is strategic and a company strives to increase its market share and turnover. Shareholders are not well informed, and their role is confined mainly to safeguarding the existence of adequate capital. There is
strong and demanding shareholders do not necessarily coincide with those of management. As a result, shareholders have to put control systems in place.

The question then becomes: what constitutes an efficient system for controlling management and how can incentives be set so as to make management behave prudentially? As noted earlier, corporate governance is not restricted to areas of managerial responsibility and relationships between shareholders and managers, but covers a wider range of agent-principal relations involving a corporation’s business operations.

Corporate governance has an internal and external element in directing and controlling the company, as outlined by the Cadbury Committee. The committee defines the corporate governance concept as ‘the system by which companies are directed and controlled’. Expanding on this, the OECD defines the concept from three points of view. The first point of view is a combination of an internal and an external element, the second an internal view and the third clearly an external view. According to the OECD,

1. Corporate governance is an element for:
   - improved economic efficiency
   - a set of relationships between a company’s management, its board, and all stakeholders

2. Corporate governance provides the structure for setting:
   - the objectives of the company
   - the means of attaining those objectives
   - the methods of monitoring performance

also inefficiency and laxness in board functioning. Management compensation schemes are based on the size of the company as well as net accounting profit.

The main features of shareholder capitalism and leadership culture are as follows. Ownership is seen as an investment in a profit enhancing company, and the company seeks to maximise the value of the company and dividends. Shareholders are well informed and the role of the company is to pass on most of its value added to the shareholders. The board is strong and capable of directing management’s prudential risk-taking and supporting shareholders’ interests. See Veranen (1996).

There is not a common understanding about the concepts ‘internal’ and ‘external’. Some refer to internal governance when talking about company’s management functions. In this connection internal governance is more or less the same as management. They see a corporation as a set of incentive systems with associated decision making, monitoring, and information structures. External governance in this context represents the accountability mechanisms that operate when internal governance fails. It also provides the means by which outsiders intervene to discipline the management when internal governance fails. Note that in this definition set a company’s board can intermediate between internal and external governance mechanisms. See e.g. Ronald J. Gilson (1998).

Lanoo (1999) writes about problems concerning the definition of the term.
3. Corporate governance depends on the legal, regulatory and institutional environment as it is mostly through laws and institutions that sound corporate governance is promoted.

4.2 Studies related to corporate governance

There is a vast body of literature on the corporate governance of ordinary companies, but much less specifically on banks. However, the issue of bank corporate governance has become of greater interest to regulators, supervisors and economists, particularly over the last decade. There are various reasons for this. Despite notable changes in international financial markets, banks still hold a unique position in the monetary policy transmission mechanism and in liquidity transformation. Secondly, banking crises during the last two decades have increased the focus of policy-makers on constructing a legal and regulatory environment that will encourage efficient corporate governance of banks, promote the stability of the whole sector and mitigate the agency problems and negative consequences of moral hazard.

The problems of corporate governance in ordinary companies are to a great extent applicable to banks, too. However, banks operate under a legal, regulatory and supervisory environment that is substantially different from that of non-financial corporations. The rationale for banking regulation and supervision - which differs from that of ordinary companies - is based on the need for safeguarding the stability of financial markets and reducing the likelihood of bank runs. There are, however, critical views against the conventional arguments for banking regulation and supervision, particularly those of the proponents of free banking. They argue that in the absence of safety net provisions market forces ensure that banks aim at strong capital positions and manage to retain depositor confidence. Be this as it may, the main differences relate to explicit and implicit insurance of banks’ liabilities and, in practice even equity capital (the too big to fail aspect, liquidation and bankruptcy rules). Other differences include the existence of strict

26 See Prowse (1997). The paper gives a good survey of research work on corporate governance of banks.
27 The legal and regulatory framework of banks differs substantially from that of ordinary companies owing to the fact that banks are assumed to have a special role in the economy. However, I am more inclined to share the view that regulatory differences cannot be fully explained by banks’ uniqueness and the existence of externalities. I also believe that in the future we will see an increase in legal harmonisation across different types of companies, be they financial companies or non-financial companies. Note, however, that a new draft on the revised Basle Accord is a contrary example, at least in the short or medium term.
28 See e.g. Alworth and Bhattacharaya (1998).
29 See e.g. Dowd (1996).
prudential regulations (e.g. capital adequacy rules), supervision by public authorities and regulations restricting the corporate control of banks (takeover rules).

It is widely accepted that an unduly extensive safety net weakens the potential of market mechanisms to control and discipline management and set proper incentives for shareholders, depositors and other creditors. The supervisory and regulatory regime of the banking sector may, to some degree, substitute for weak market mechanisms and market discipline. However, intervention and preventative supervision by the authorities has turned out to be a costly and not an optimal substitute for market control mechanisms. This leads us to conclude that the effectiveness of corporate governance mechanisms in banks is weaker than it could be in a regime focused on incentive-based rules and regulations, be they externally imposed or self-imposed by banks.

As regards ordinary companies, most research concentrates on the issue of ownership structures of corporate firms. The papers look at whether an Anglo-American (US, UK) structure or the so-called European structure (Germany, Japan) is more efficient from the point of view of the companies’ shareholder value. The main features of the Anglo-American corporate governance structure relate to liquid capital markets, diffuse non-corporate ownership, strong and demanding institutional investors, strong minority protection, frequent take-overs, independent board members in a one-tier board system and strong management incentives to maximise shareholder value. Typical features of the German-Japanese system are relatively illiquid capital markets, concentrated (bank- or family-centred) ownership, cross-holdings and board representation between companies, weak minority protection, and a two-tier board structure with primarily insiders in the executive board. The European corporate governance structure also allows other stakeholders besides shareholders to take part in the decision making of the company. Companies are therefore considered to take into account wider interests than just those of the shareholders.

The studies note that neither of these structures is more efficient than the other in all respects. Both systems have their pros and cons. However,

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30 In many countries the most common response of regulators to problems and crises in the financial sector has been to increase the amount of regulation. It is mostly since the crises of the 1980s and 1990s that the response has received special attention, by seriously considering what are the realistic chances of avoiding crises by intensified regulation. The idea to focus on incentives created by regulation and supervision is originally emphasised by economists, and the view is today shared by regulators and supervisors.

31 See Shleifer & Vishny (1997). Differences between the corporate governance systems of these four countries are not as great as usually stated. They point out that all four countries are among the countries with the most efficient corporate governance framework.
there is a tendency to move towards the Anglo-American practice. Economists have warned that changing only a single characteristic within one of these systems runs the risk of making performance worse, not better. This is because the various characteristics of any corporate governance system are complementary.  

4.3 Different practical approaches to corporate governance

Several proposals, mainly recommendation-based, have been issued by committees in various EU-countries and by international organisations such as the OECD and Bank for International Settlements. The trend in proposals put forward by individual EU countries is towards reliance on self-regulation supported by market-based enforcement.

A good example of this is the Code of Best Practice issued and codified by three UK-based committees. It includes recommendations on efficient board structures and division of responsibilities, disclosure of information on executive pay systems and voting procedures at AGMs, as well as control systems for reporting by setting up audit and remuneration committees. Although they are only recommendations, reference to the Code is part of the listing requirements for the London Stock Exchange. What makes this even more effective, is that UK-listed companies are requested to indicate the degree of compliance with the code in their annual reports and explain the reasons for any non-compliance. The ultimate efficiency of self-regulation of this kind depends very much on the actions taken by the Stock Exchange in the event of non-compliance. Basically, the voluntary rules lose much of their effect if not backed up by rules of enforcement. This is the situation with regard to the Viennot Report issued by the French Employers’ Federation.

The criticism of a loose enforcement system can be applied to the recommendations of the Helsinki Stock Exchange on corporate governance. The Stock Exchange supported the conclusions of the Corporate Governance Working Group by recommending that listed companies comply with the proposals of the working group. In the absence of an obligation to justify any non-compliance and in the absence of any indication of sanctions in the case of non-compliance, the

34 See e.g. Lannoo. The Paris Stock Exchange has however published that they are aiming at supporting the recommendations by taking them into the rules of the Stock Exchange. So far I have not, however, seen any practical consequences in this respect.
incentive effect of the recommendation is quite small. Moreover, the recommendations are less far-reaching than, say, those of the UK committees.

The principles of Corporate Governance\textsuperscript{35} issued by the OECD are non-binding and as such not meant to be implemented into national legislation. On the contrary, the OECD, favouring a laissez faire system, leaves it up to national governments and market participants to decide how to apply the Principles to each country’s legal and regulatory framework, ‘taking into account costs and benefits of regulation’. The value of the OECD guidelines lies in their material content, not in their judicial force or legal powers.

The Basle Committee on Banking Supervision has supported the OECD work and published a paper entitled ‘Enhancing Corporate Governance for Banking Organisations’ (September 1999). The committee wanted to ‘reinforce the importance for banks of the OECD principles, to assist supervisors in promoting the adoption of sound corporate governance practices\textsuperscript{36} by banking organisations’. It is worth noting that the committee, like the OECD, recognises that different structural approaches to corporate governance exist - and are allowed to exist - across countries. And therefore the committee encourages any practices that can strengthen corporate governance under these diverse structures. As a result, neither of these organisations indicates a preference for a particular governance structure.

The European Union approach to corporate governance stems from the drive to create a single market area. Essentially, this means that the primary approach of the EU is to harmonise the legal framework at EU level.\textsuperscript{37} In line with this, the European Commission has launched a Financial Markets Action Plan supporting a rapid progress towards a

\textsuperscript{35} See OECD Principles of Corporate Governance (1999). See also a Report to the OECD by the Business Sector Advisory Group on Corporate Governance: "Corporate Governance: Improving Competitiveness and Access to Capital in Global Markets".

According to the OECD, principles of good corporate governance cover five key areas: 1) The rights of the shareholders; 2) The equitable treatment of shareholders; 3) The role of stakeholders; 4) Disclosure and transparency; and 5) The responsibilities of the board.

\textsuperscript{36} According to Basle Committee, good corporate governance includes the following areas: 1) Establishing strategic objectives and a set of corporate values that are communicated throughout the banking organisation. 2) Setting and enforcing clear lines of responsibility and accountability throughout the organisation. 3) Ensuring that board members are qualified for their positions, have a clear understanding of their role in corporate governance and are not subject to undue influence from management or outside concerns. 4) Ensuring that there is appropriate oversight by senior management. 5) Effectively utilising the work conducted by internal and external auditors, in recognition of the important control function they provide. 6) Ensuring that compensation approaches are consistent with the bank’s ethical values, objectives, strategy and control environment. 7) Conducting corporate governance in a transparent manner.

\textsuperscript{37} See Lannoo (1999).
single market. As part of the Plan, the Commission will publish a review of existing national codes of corporate governance in order to identify potential legal barriers to the completion of a single European financial market.

It is clear that Europe has a long way to go when it comes to common rules on corporate governance. In view of the fact that legal frameworks associated with corporate governance differ significantly across EU member states and include very sensitive issues from the political, social and economic points of view, it is hard to foresee rapid harmonisation in this area. A quicker way forward might therefore be a combination of national codes of best practices backed up by national stock exchanges as well as by supervisory, accounting and auditing bodies. On a cross-border level, the strengthening of the BIS role as regards guidelines for corporate governance of financial market institutions would be beneficial. Obviously there are other alternatives too. As an example, and one that applies to corporate business in general, the Centre for European Policy Studies (CEPS) has suggested that a group of blue chip European corporations could show the way and adopt a European Code of Good Practices in directing and controlling corporate business at EU level.38

A critical question at EU-level, and more generally, is the balance between promoting self-discipline and binding legal rules. As noted earlier, self-discipline may remain ineffective if not backed up by rules of enforcement. The self-discipline approach is, however, more flexible and quicker to realise. Political consensus for legal amendments could be more difficult to achieve than say consensus among supervisors.

4.4 How to set incentives for bank management

A good governance system for bank management focuses on the questions of how to get management committed, how to exploit market discipline and how to control management? A suitable corporate governance structure will start with a clear division of labour and responsibilities between a bank’s management and board, as well as clear and exercisable sanctions in the event of non-compliance. Thus, all responsible agents and bodies must face responsibility in its positive (responsibility and power) and negative (responsibility and sanctions) dimensions.

In the following, we look first at the positive side of responsibility, section (4.4.1). There I focus on one particular aspect, that is the issue of

a one-tier board structure versus a two-tier board structure. I cite some of the conclusions in the literature and use empirical evidence from Finland as a case to argue in favour of a one-tier board structure. Section (4.4.2), ‘Responsibility and Sanctions’, explores the negative side of responsibility, and refers to empirical evidence from New Zealand and Scandinavian countries, mostly Finland.

4.4.1 Responsibility and power

Research results are somewhat contradictory and studies have not been able to recommend a single optimal board structure. As pointed out above in connection with differences between Anglo-American and German-Japanese corporate governance, the structure of corporate boards varies greatly across the countries. It ranges from a two-tier supervisory and management board structure in Germany, to insider-dominated boards in Japan, and to mixed boards in the US and UK.39 Sweden has applied a one-tier board structure with a strong presence of non-executive members. It is one of the forerunners as regards having a profession of expert non-executive board members.

It is important to bear in mind that all models are at least partly dependent on the corporate and political culture of each country and not a simple result of pure economic factors. Shleifer (1997) refers to studies showing that there has had to be a real disaster, before boards, even in the US, have actually acted and removed top managers. Some studies refer to the fact that even US corporate boards are captured by management.

When it comes to the potential approach of the European Union in this respect, I do not believe there will be any strict ruling in favour of any particular one of the models. On the contrary, there are signs that Europe will allow both two-tier and one-tier board structures. This can be concluded from the EC draft on the Fifth Company Law Directive, from BIS guidelines, and from the OECD approach. Thus, it will obviously be up to member states’ own legal rules which model is chosen. This being the case, the need for a European-wide code of best practise emphasising crucial elements within different legal structures becomes even more important.

**Empirical evidence from Finland**

I am more inclined to favour a one-tier board structure for both ordinary companies and banks. I base my conclusions on the following empirical evidence from Finland. Finland’s banking crisis revealed major

drawbacks in the internal governance structure of banks, both when it comes to commercial banks with limited liability and savings banks with a special kind of a thrift or mutual form.

The legal framework of ordinary companies differs in some crucial aspects from that of banks. The Companies Act allows, but does not require, a two-tier board structure for companies above a certain size (in relation to share capital, the trigger is EUR 80 000). The responsibilities of the supervisory board can be divided into those required by law, assumed by law, and permitted by law. The supervisory board is required to oversee the board of directors and managing director, to give a statement on the annual accounts and audit, and to give instructions to the board on far-reaching and crucial issues. The body is assumed to elect and decide the pay and bonus systems of the board. If stipulated in the articles of association, the supervisory board is, for example, entitled to decide on a major decrease or increase in the company’s activities.

According to the Companies Act, the board is responsible for the proper organisation of the administration and business of the company. More specifically, the board is ultimately responsible for accounting and financial management, while the managing director is responsible for running day-to-day business and is particularly charged with ensuring that the company’s accounting satisfies legal requirements and that financial management is organised in a reliable manner. Just like in banks, the board of an ordinary company is the key body of the company with a wide area of responsibilities. Finally, the managing director is allowed to be a chairman of the board of directors in companies with a supervisory board.

When it comes to banks, the supervisory board is a compulsory body in commercial banks and co-operative banks, while in savings banks it is non-compulsory. The obligation to set up a supervisory board relates to the fact that the board of directors is assumed to include, predominantly or solely, executive members, each of whom is responsible for various fields of banking business in day-to-day operations. The supervisory board is responsible for overseeing that the bank is run prudently in compliance with laws and articles of association. More specifically, the supervisory board is responsible for electing members of the board of directors, deciding on their pay and bonus systems, confirming general guidelines on strategic matters and issuing a statement on the accounts and audit of the company.

The responsibilities of the board of directors are very loosely regulated in the Banking Acts. The only rule is that the board of directors is
responsible for the conduct of banking business in compliance with laws and the articles of association thus implying that the board is the key organ of the bank with a wide range of responsibilities. There are no provisions on the responsibilities of the managing director, thus leaving this area dependent upon the articles of association.

The resulting differences in the above-mentioned legal rules of internal governance of ordinary companies and banking companies are:

- The supervisory board structure is compulsory in banks, excluding savings banks.
- The division of labour between banks’ executive board and managing director is obscure. Indeed, the Banking Acts remain silent in this respect.
- The responsibilities of a bank’s executive board do not specifically address key areas of responsibilities.
- The role and position of the managing director is most confusing in banks, owing to the fact that he can act as chairman of the internal board and the lack of legal rulings regarding his area of responsibility.

The problems with the two-tier board structure relate partly to the laxness and obscurity of legal rulings and partly to problems caused by poor business practices.

Ordinary companies in Finland, with the exception of state-owned companies, are in the process of doing away with their supervisory boards and strengthening the role of the non-executive boards. An example of this is Nokia Plc, a Finnish-based telecom company with 80% of its shares in foreign hands. The company adopted a market-oriented strategy in 1994, with the aim of building a global company with a clear focus on telecom business. The company now has a nine-member board with eight non-executives, two of whom are non-Finnish.

Most of the state-owned companies in Finland have had, and still have, a two-tier board structure with a large (12-20 member) supervisory board. Some companies even have a supervisory board as well as a non-executive board, thus providing two overlapping levels of control. However, most Finnish academic literature sees a combination of a supervisory board and executive board as being problematic, even dangerous. There have been serious discussions, and official committee recommendations, regarding the need for simplifying the governance structure in state-owned companies. The recommendations have not lead to any major changes mainly because of political resistance. Recent developments have, however, accentuated the problems associated with
large and poorly informed supervisory boards. It has become increasingly obvious that supervisory boards are failing in their role of exercising control and decision-making. There have been classic examples of a supervisory board being captured by strong management in the connection of privatisation or corporate restructuring of some state-owned companies. The cases of inappropriate management bonus and option arrangements reveal the strong role played by the companies’ management in the decision-making process, although formal decisions in these areas are meant to be made by supervisory boards.

In Finnish academic literature, a compulsory two-tier board structure, with the management in the board of directors, is regarded as being a dangerous structure. Evidence on the Finnish banking crisis supports this view. When it comes to their role in controlling the board and management, the supervisory board is highly dependent on information given by management. In this structure, the supervisory board becomes the only controlling organ in the bank because the internal board structure makes lines of responsibility between management and the board obscure. If the supervisory board is large (more than 10 members) and simultaneously the duties are obscure or less relevant to the control of the executive board, the executive board (not the supervisory board) many actually run the business and even supervise itself. The vagueness of the agent-principal relationships between management and the board causes real problems. It is difficult to see how the board can critically and independently judge management in a situation where the board is comprised of members of management. The situation is also difficult in the sense that management presents company matters on the board to itself.

The situation described above becomes worse in a bank where decision-making powers are widely delegated among members of the board of directors. Combined with the need to run the operational business quickly and flexibly, this may result in a situation where there is no single entity within the bank that is actually aware of and is controlling the total risk positions of the bank as a whole. There have been cases in the history of banking in some countries where the delegation of responsibilities within a board and the absence of sufficient control systems has offered a free rein to the most aggressive management-board-members, without any fear of actually being accountable to anybody. There is a Russian saying ‘trust but verify’, which sums up the desirable division of labour between management and board, as well as the division of labour within the board itself.

41 See e.g. Veranen (1996) who takes a very critical view in this respect.
For Finnish savings banks, a two-tier board structure was made possible in 1991. However, a lot of the bad assets had already been taken on by the savings banks. Thus it is not a two-tier board structure that is to blame when it comes to problems in the performance of Finnish savings banks. The key problems relate to the uncertainty surrounding the division of responsibilities between the managing director, the board and delegates. The last-mentioned are the authorised representatives of savings banks, mostly senior managers, to whom the board can delegate its duties. It is worth mentioning that the managing director can also act as a delegate.

Supported by the statutory right to delegate authority, there was a shift in the control and decision-making in the day-to-day business of savings banks towards a powerful internal management (managing director and the delegates) on the one hand, and a soft non-executive board on the other. The situation was further exacerbated by the fact that board members represented local interest groups (customer groups, local economic and social groups) and thus lacked experience in banking or corporate business. The decision-making and control system resembled that of their central institution (the Skopbank). The only difference was that in Skopbank practically all powers were vested in the executive board, while in the savings banks it was the management team (managing director and the delegates) which wielded similar powers.

It was very much in the Skopbank’s interests to favour a quick and flexible decision-making system in the savings banks (and obviously this has some merits in principle). But given an aggressive lending strategy, efficient control systems became even more relevant. The boards lacked both sufficient information and sufficient expertise, the need for which was not regarded necessary by management or indeed by Skopbank. There was a feeling, during the late 80s, that the mission of the board of savings banks was to trust, not to control. All in all, the delegation of responsibility for day-to-day operations to a savings bank’s management, headed by the managing director, obscured the original division of responsibility between management and the board. The power of the managing director, in particular, increased, but he was not subject to effective scrutiny and control.

**Conclusions**

To conclude, the more levels of control there are, the bigger are the agency problems. The Finnish experience provides support for a one-tier board structure approach with highly qualified non-executive board members forming a majority (even in banks and state-owned companies).
A situation where non-executive members are in a minority on the board may cause problems. The ‘external’ members can end up as hostages of the chairman and their independence can be questioned. The collegial legal responsibility, if also enforced by courts, should, however, act as an incentive for ‘external’ members to fight for a level playing field in comparison with ‘internal’ members.

In addition to a one-tier board structure, legal rulings should emphasise the clear division of responsibility between the managing director and the board, and distinguish the relevant areas of responsibilities for each of these parties. For example, banking legislation should mirror company legislation in addressing who is responsible, and how, for risk management and accounting. The confusion regarding the principal-agent relationship that results from delegation is a matter that should be given greater attention when defining rules of responsibility. The board can delegate its tasks, but the act of delegation should not reduce its own liability to oversee management.

4.4.2 Responsibility and sanctions

The issues discussed above were connected with the positive side of responsibility - the ‘responsibility and power’ dimension. What can we say about the negative side of responsibility, namely the ‘responsibility and sanctions’ dimension? The idea of sanctions has to do with the incentive effect they have on management and board members by encouraging them to undertake their existing duties conscientiously. Thus in an optimal situation, there is no need to exercise sanctions. They act as a deterrent and a driving force for prudence. However, the real world is not optimal and the enforcement of sanctions is as important as the sanctions themselves.

I refer to two bodies of empirical evidence, one relating to New Zealand and the other to Scandinavian countries. As regards the Scandinavian evidence, both rules on sanctions and their enforcement by courts are referred to.

Rules on sanctions

Following a four-year period of review, in 1996, New Zealand implemented a new system of banking supervision.\textsuperscript{42} The system entails a network of incentives to ensure that appropriate attention is paid to the management of risk by bank shareholders, directors, management, depositors, financial analysts and competitors. These incentives are

\textsuperscript{42} See Mayes (1997 ).
applied by an extensive regime of quarterly disclosure of banks’ assets, liabilities and exposures to risks, backed up by an attestation by all the directors, including also non-executive directors, that the bank is applying appropriate risk management procedures. In the attestation the board members confirm that the bank has put adequate systems in place to monitor and control risks and that these systems are being properly applied. Directors are liable to stiff fines (up to $NZ 25 000, equivalent to US$ 13 000) and periods of imprisonment (up to 3 years) for false or misleading statements – both as regards disclosure and attestation - and have unlimited personal civil liability for losses incurred by others as a result of these statements. Civil liability is possible in the case of losses sustained from subscribing to any debt security, including bank deposits, issued by the bank on the basis of false or misleading information contained in the disclosure statements.

The requirement for disclosure and attestation, together with a particular criminal or civil liability to provide true and fair information, is a clear incentive for prudent behaviour and ex ante commitment. It is also common in Sweden and Finland, for example, to have rules on sanctions in the event of overall negligence. To give an example, under the Finnish Credit Institutions Act, members of the supervisory board and executive board are subject to civil liability for losses incurred to the bank and caused by negligent or intentional behaviour on the part of board members. The responsible bodies are also subject to a criminal liability (fine or imprisonment of up to six months) for providing false or misleading information to the authorities. Moreover, there is a penal law provision on intentional or gross negligence in connection with the drawing up of an annual or interim report that contravenes the law or regulations issued by the authorities.

The New Zealand approach is far better when it comes to ex ante efforts through legislation or regulation to make bank directors committed to prudent behaviour and control. The approach clearly highlights the key responsibility of the directors. A particular advantage of the New Zealand approach, as compared with that of Finland and Sweden, is that it addresses the key areas of responsibility, while in Finland and Sweden, civil liability is limited to an overall duty to run the business in a prudent way. Another drawback of the provisions on special criminal liability in Finland and Sweden relates to their emphasis on gross negligence and intention, as well as to the emphasis on providing information to the authorities, not to the public. A more effective approach would be to specify the duties of the board and management to ensure true and fair disclosure as well as risk management procedures, and leave non-compliance with these duties subject to a particular liability.
Enforcement of sanctions

One consequence of the banking crises in Scandinavian countries was that directors had to share the financial losses incurred to the banks as a result of their negligent behaviour. The procedures themselves differed quite markedly between Finland, Norway and Sweden. Sweden and Norway did not embark on long court processes. Rather, the authorities succeeded in agreeing with the directors for amounts of damage compensation, together with the cancellation of retirement bonuses previously granted to the directors. Whereas in Finland, the authorities left it to the banks to raise damage compensation claims against former bank directors, 27 claims in total. The cases were raised on the basis of negligent behaviour in respect of an overall duty for prudent conduct and also in respect of the duty to comply with some specific legal rules, such as rules on large exposures and rules on limitations for non-collateralised lending. After seven years of ongoing trials, there are still some cases waiting for the verdict of the appeal courts. Thus the process has been a long one, has cost both sides a great deal of money, and resulted in quite low levels of compensation penalties, particularly for former board members.

It is not easy to draw a single conclusion regarding the compensation claims process followed in Finland against former bank directors. The court procedures show that the legal protection of investors (stakeholders) works, although the competence of district courts varies quite a lot. In some cases directors were given a considerable amount of sympathy. In particular, some courts allowed the deep economic recession to be a factor abolishing the duty to compensate on the basis of a breach of law, even abolishing the very breach of the law. In my opinion, the recession has no bearing on the interpretation of a legal rule but may be a factor in deciding the amount of compensation.

All in all, it remains to be seen whether the trial procedures will act as proper incentives against excessive risk taking in the future. In theory this should be the case. At the end of the day, when all the rulings have come out, the banking industry and supervisors should be better informed about the extent of accepted risk taking. Before the banking crisis, bank directors were not used to legal liability with respect to the duty of prudent behaviour. A common approach was to replace a director who was suspected of misconduct. In some cases this was even accompanied by a compensation for early dismissal. Thus we can say that legitimate rules for misconduct enforced by courts may increase the accountability
of a bank’s management and board, and thus act as a proper incentive for prudent behaviour in the whole sector.

In contrast to the criticism of Finnish district courts’ capacity to enforce legal rules for prudent conduct of banking business, the courts’ interpretations of the legal protection of discharge from liability can be regarded as successful and as having helped to prevent excessive risk taking. The interpretation that the legal protection of discharge from liability is very limited counterbalances the fact that the shareholders (principal) are dependent on the information they receive from the board and the management (the agents) in deciding on the directors’ discharge from liability. The policy adopted by the courts in their interpretations enhances the credibility and incentive effects of these legal rules.

To conclude, I am not in favour of sanctions alone as part of the incentive framework for prudential behaviour of banks. Sanctions and their enforcement are the last link in the chain beginning from clear-cut lines of responsibility in all agent-principal relations. An important aspect is progressive incentives before penalties are triggered. This latter aspect is also explored in connection with incentives for supervisors (section 4.6).

4.5 How to set incentives for shareholders

The issue of owners’ incentives for efficient control of management relates to the amount of capital they have invested in the company as well as the functions of market mechanisms in the case of the threat of liquidation or take-over by outsiders.

The literature in this area often refers to the fact that dispersed ownership, together with too many small shareholders, creates bigger demands for well-functioning corporate governance, although this view is also disputed. Some studies address the fact that large shareholders also cause costs (see Shleifer). These studies note that large investors represent their own interests, which need not coincide with the interests of other investors or with the interests of employees and managers. Japanese evidence offers a very different view of large investors, namely that they are too soft rather than too tough. According to various studies the same applies to German banks, who are not nearly as active in corporate governance as might be expected given that their influence in lending to, and control of, corporations is significant. Large banks are seen to be too soft in corporate control because of their own agency problems, and because they fail to terminate unprofitable projects they have invested in - continuation is preferred to liquidation.
The US and the UK are among countries where large shareholdings, especially majority ownership, are relatively uncommon (Shleifer, Ylä-Anttila, Dewatripont & Becht). In 98% of US companies voting powers of individual shareholders are less than 50% and in 53% of companies less than 5%. The respective figures for German companies are 36% and 1%. The median size of the largest ultimate outside voting block in Germany, France, Italy, the UK and the US are 52%, 20%, 52%, 10% and 0% respectively. We can conclude from this that large shareholdings in one form or another are almost the norm in countries other than the US and UK. The same applies to the banking sector, although the high concentration in the banking sector in several countries also reflects the small number of significant banking institutions.

As regards ways to increase owners’ incentives to control the management, this paper looks at issues other than the concentration of ownership. The importance of adequate capital includes factors that reduce the quality of capital. Besides formal capital requirements, true and fair financial statements, which enable determination of whether the actual capital base corresponds with the officially reported capital, are also crucial. Sufficient actual and reported capital is necessary for preventing excessive risk taking. Firstly because it comprises a necessary buffer against risk realisations. Secondly, a sufficient capital requirement gives owners the proper incentive to upgrade their monitoring, which again lowers the probability that they will lose substantial amounts of their investments. Sufficient legally mandated capital is also an important offset to excessive risk taking that might result from the moral hazard generated by deposit protection and other safety nets.

Below, I highlight differences in the accounting rules of Scandinavian countries and draw conclusions on the crucial features of well-functioning accounting rules, which support the build-up of ‘true’ capital.

On the whole, the capital adequacy requirements laid down in Finnish legislation did not meet international standards as regards their contents and timetable for their adoption.43 The situation did not change until the end of the first half of the 1990s. When deregulation got under way in the

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43 Until 1991 the level of capital adequacy was measured as equity capital in relation to commitments (on-balance sheet) including part of off-balance sheet guarantees. The Basle Accord has been largely incorporated in Finnish legislation in 1991 but with some major exceptions. As an example, revaluation reserves of fixed assets were treated as tier one capital, loans guaranteed by local banks’ mutual insurance companies were treated as interbank lending and loan loss reserves were unlimitedly included in tier two capital. The outcome was at least partially a result of a consensus-driven policy favoured by regulators and supervisors combined with the fact that those subject to regulation (banks) had a remarkable influence not only in the interpretation of current legal rules (law-taking) but also in the contents of legislative drafting (law-making). This approach is known for example, in public choice theory.
mid-1980s this structural distortion in the legal framework became more pronounced since banks could operate with levels of capital that were too low and the rules on capital adequacy underestimated the true extent of risk taking. This was particularly true for local banks - savings banks and co-operative banks.\textsuperscript{44}

In addition to the overall framework of capital adequacy mentioned above, there were some particular features, which in fact eroded the hard core of equity capital. The widespread use of revaluation reserves to meet the requirements of capital adequacy was one of the major distortions, which led to a situation where savings banks’ formal capital adequacy did not correspond to their actual capital adequacy. In contravention of the Accounting Act and good accounting practice, the revaluation reserves among banks have, from the very beginning, aimed at increasing the level of equity capital, rather than being an exceptional and extreme instrument for re-pricing the value of real estate assets, for example. The revaluation reserves were key, for example in the 1980s when competition among the different banking groups increased. The situation was preceded by a long boom period and liberalisation of capital markets. In this new situation there were no impediments to increased lending to customers. Thus the pressures to increase the level of equity capital became bigger and bigger. In hindsight, the distorted incentive effect of this particular accounting practice can easily be discerned: instead of prudent risk taking, efforts focused on finding artificial ways to meet the legal requirements of capital adequacy.

The accounting rules and practices of Denmark are an example of efficient rules that have resulted in the disclosed amount of capital being in line with the actual amount of capital. The Danish accounting rules for banks are basically based on a mark-to-market principle. For years banks have had to value their assets, including loans to customers, according to the market value or present value. The latter can be applied if there is not any actual market value for a particular loan. In line with this principle, the banks have had to make loan loss reserves for both obvious and potential losses. In general, the Danish loan valuation rules are among the strictest in the world. The Danish authorities and banks share the opinion that the strict rules for loan losses were one reason for the fact that Denmark escaped a systemic crisis in their financial markets, unlike its Nordic neighbours Norway, Sweden and Finland.\textsuperscript{45} Of equal importance

\textsuperscript{44} Finnish banking legislation allowed savings and co-operative banks to operate with lower capital adequacy levels than commercial banks until 1991. To counterbalance this, the scope of business of local banks was more strictly defined than that of commercial banks. However, regulators and to some extent even the courts diverged from this basic counterbalancing presumption.

\textsuperscript{45} See Norwegian Report (1997-98).
is also the requirement of an adequate level of capital - Denmark met international standards years earlier than Finland, Sweden or Norway.

When it comes to Finnish accounting rules, particularly before the 1990s, the loan loss provisions were based on taxation rules rather than on accounting rules. Taxation rules specifying the maximum tax-deductible amounts of annual provisions for loan losses (0.6% of the lending) have dictated the level of loan loss provisions in accounting. This led to a situation where too little emphasis was given to the true value of banks’ loan stock, which may have increased the potential distortion between the actual value of own capital and the formal value. As a consequence, the profitability and solvency of savings banks reported in their accounts did not give sufficient, if any, warning signals before 1991, although the problems that ultimately culminated in a severe crisis were present in balance sheets during the late 1980s. As a curiosity, Skopbank was apparently one of the most solvent banks in Finland at the start of the 1990s. However, the bank was taken over by the Finnish central bank in September 1991. All in all, loosening the close links between taxation and accounting has been a key issue since the 1980s and some progress has been made, but a lot still remains to be done.

The accounting rules on asset valuation and loan loss reserves in Sweden and Norway have also by tradition been less strict than in Denmark. However, for example, the Norwegian accounting rules for loan loss reserves cannot be blamed for the country’s banking crisis although reliable, true and fair accounting rules for valuation of lending activity are an important instrument for describing the real economic situation of banks. In addition to well-founded and forward looking accounting rules for loan loss reserves, there is a need for banks to create adequate reserves for potential future problems during years of good economic performance. This highlights the importance of a strong capital base as a buffer against potential future problems. In line with Finland, the capital adequacy of many Norwegian banks was insufficient for covering any big losses. According to the report to the Norwegian Parliament, the legal requirements regarding solvency ratios were, at least to some extent, too lax in order to prevent excessive risk taking. This criticism applies, for

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46 Similar findings have also been made in the US, where it has been concluded that various solvency ratios (total risk-based capital ratio, tier 1 risk-based ratio and leverage ratio) do not in reality react quickly enough to the problems faced by credit institutions. The studies support the fact that corrective actions by authorities should be made earlier than just after the minimum solvency ratios are breached. Studies also show that ratings other than solvency ratios, such as CAMEL-rating, reveal the problems clearly before there is any erosion in capital ratios. To mitigate this problem, the FDICIA was amended so that the authorities can intervene into the activities of a credit institution even though the institution is solvent according to capital ratios. The only necessary precondition is that the financial condition of the credit institution is unsafe or unsound or the institution is engaging in an unsafe or unsound practice.
example, to rules on subordinated debt, which enabled the Norwegian banks to increase their capital base without any actual external capital infusion.

4.6 How to set incentives for supervisors

One of the key lessons of banking crises in several countries is that regimes of detailed supervision have major drawbacks not only in relation to cost but also in relation to systemic stability. Another key lesson is that supervisors tend to be overly forbearing when detecting signals of distorted behaviour or imminent problems. Supervisors may also have a tendency to buy time to solve the problems, rather than get to grips with the very problems themselves.

The responses in relation to detailed supervision and forbearance are that supervisors should commit to ex-ante-defined procedures and disclosure of supervisory actions, positive or negative. Commitment to procedures, rather than to licence-based detailed supervision, underscores supervisors’ commitment to the objectives of rules and procedures.

47 As an example on supervisors’ historical inclination to a detailed, licence-based supervision I can mention the behaviour of the Finnish FSA when they granted licences for banks’ applications on revaluation of fixed assets. As mentioned earlier in this paper, banks were able to re-value their fixed assets to conform with the permanent (in principle higher or lower) value of the asset if it differed from, say, the value at the moment of purchase or the value in the accounts. This legal ruling was not in line with the BIS or EC Capital Adequacy Regulations until 1994. The ruling was not, however, meant to be a day-to-day or year-to-year vehicle to adjust the values of fixed assets to changing market situations. The ruling was supposed to be exercised only in exceptional cases, where it was evident that the permanent value of, say, a certain piece of real estate was with great certainty higher than its accounting value. Neither was it the legislator’s aim to end up in a situation where 80-90% of the own capital of some banks, not to mention an entire banking group, consisted of asset revaluation reserves. There was thus a danger that the entire capital base could be eliminated in the event of a downward move in asset prices.

It is interesting to note that the supervisors clearly identified the basic objective of the rule in the beginning (early seventies). They foresaw the problems that were likely to occur if the revaluation of fixed assets became a rule rather than an exception. To overcome the potential threat of deviating from the spirit of the law, they ended up by introducing a procedure whereby every asset revaluation was subject to approval by a supervisory authority. Thus they chose a method of burdensome licence-based supervision. As long as revaluation reserves became a central instrument for increasing the capital of, say, savings, banks supervisors had to devote more and more resources to handling the applications. It was believed that the supervision could safeguard the reliability of the determination of asset values. And this proved to be the case to a certain extent. However, no matter how many resources were devoted to handling the applications, this kind of supervision was not able to prevent the distorted effects of asset re-valuations on the actual capital base of savings banks. This is because the starting point was not in line with the objective of law, in this particular case with the objective of using the method only in exceptional cases, not as a common rule. This example shows clearly that the key issue for supervisors is to devote resources to supervision of the whole system, structural factors and systemic risk aspects.

48 US experience in the savings and loans crisis draws attention to situations were the authorities allowed banks to operate subject to capital adequacy regulations that were less strict than basic rules. The legal minimum levels were lowered and banks could use particular regulatory accounting rules (RAP) instead of generally accepted accounting principles (GAAP). This made it difficult, even impossible, to know what was the actual solvency of problem banks. See White 1991 and Dellas – Diba – Garber (1996).
Striving for the increased disclosure of supervisory findings is a way of increasing the accountability of supervisors, of letting other market participants assess the effectiveness of supervision and also of increasing the commitment of bank management, directors and owners to prudent behaviour and risk control of banking business. 

The above mentioned commitment to ex ante procedures is not unanimously shared by all participants in the field of supervision. Before going further, it may be worth pointing out that commitment to ex ante procedures does not necessarily mean a reduction in overall supervisory discretion. But it does mean the limitation of arbitrary discretion by supervisors. We can say with some justification that commitment to ex ante procedures implies more discretion inside the procedure system, and definitely makes supervisors more accountable to the public and other market participants. It also implies an incentive system for supervisors themselves to comply with the objectives of legislation and supervision, which helps to promote systemic stability. And last but not least, it implies an incentive system for bank management to take deliberate remedial actions before resorting to legal actions taken by authorities. At the end of the day, there also is a possibility that the amount of detailed, private information provided to supervisors can be reduced.

An example of ex ante procedures is the US Prompt Corrective Action system, which gives supervisors wide rights and duties in the event that the capital adequacy of a credit institution falls below the pre-prescribed limits for step-by-step worsening. This emphasises the accountability of supervisors and their duty to commit themselves effectively to the objectives of legislation.

**The approach of the Finnish FSA**

As an example of a supervisory approach aimed at increasing the accountability of supervisors and promoting market based supervision (to exploit market discipline), we can look at the approach of the Finnish Financial Supervisory Authority (FSA).

As a response to the 1990s banking crisis, the FSA has thoroughly revised its values, objectives and strategic approach with a view to achieving objectives in harmony with the accepted ethical values. The FSA’s main values are independence, transparency, effectiveness and expertise in supervision. Its main objectives are to promote the stability and reliability of financial markets. Its main aims as an organisation are to

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49 See Brian Quinn (1998).
be an independent, reliable, transparent and respected part of the domestic and international network of supervisors. The FSA’s strategic approach is built on the twin aims of promoting market-based supervision and increasing the disclosure of relevant information. It also promotes the efficiency and reliability of financial markets, as well as co-operation with relevant domestic and foreign participants. Basically, the FSA’s market-based approach to supervision is expressed in the way it promotes the efficient and ethically accepted functions of the financial markets.

The principles set out above could be applied to any supervisor operating in developed financial markets with a reasonably well functioning financial infrastructure. My main interest here, however, is not in general objectives and values, but rather to point out some concrete methods and procedures for increasing the commitment and accountability of the supervisor himself to the above-mentioned objectives.

To implement the market-based approach in supervision, the FSA has split its concrete objectives into six areas:

• to contribute to correct and sufficient information on financial services and products (1)
• to contribute to a true and fair view of entities subject to supervision (2)
• to achieve an effective combination of self-control and supervision (3)
• to promote effective corporate governance, in particular effective shareholder control (4)
• to control the suitability of the administration (risk management and fit & proper aspect) of entities subject to supervision (5)
• to increase the accountability, consistency and predictability of the supervisor himself (6)

As part of the second objective (2) (to contribute to a true and fair view of entities subject to supervision) the FSA is endeavouring to increase the amount of public disclosure of relevant information on financial sector institutions’ performance and risk exposures. Of particular interest from the point of view of this paper, the FSA is aiming to disclose its key supervisory decisions and actions. Note that the main aim of disclosing ex post supervisory actions is not to increase the accountability of the supervisor, but rather to provide the public with a true and fair view of financial institutions. However, the disclosure of supervisory actions by definition also increases the accountability of the supervisor himself. Still, the need for ex ante disclosure (such as, for example, disclosure of internal ratings used by the supervisor and disclosure of findings on the
basis of on-site inspection) is not emphasised. One can, with good reason, argue that disclosure of ex ante findings creates more ambiguity and problems than it resolves.

A basic principle underlying the FSA approach is to publish, whenever possible, all supervisory actions and decisions. Supervisory actions subject to disclosure are defined as legally binding actions authorised to be taken by the FSA, be they disciplinary (sanctions, prohibitions etc) or just the implementation of the legal rights of the FSA (to call for a general meeting or a supervisory board meeting). The interpretations of particular rules are not treated as supervisory actions, but the nature of them is such that it is in the interests of all parties that they be published. However, at this stage the plan does not include actions relating to liquidation procedures. As one specific exception, the FSA is not going to disclose its decision to run through a special audit of a bank.

The discretion relates to situations where the outcome could have extremely adverse consequences (unreasonable harm or threat of collapse) for the institution subject to disclosure. The aim is not to cause instability in the markets, but rather to strengthen the stability. However, the judgement involved in exercising discretion can be problematic, given the fact that short-term and long-term consequences can be different. The FSA has not defined more closely the starting points of discretion, which leads me to assume that discretion will be exercised to a rather limited extent as the starting point is to disclose all decisions or legal actions taken by the FSA.

At the beginning of December 1999, a new Act on Publicity of the Actions of the Authorities came into force. The Act gives a clear signal in favour of transparency, stating that the documents of the authorities are public unless otherwise stipulated in the Act. The criteria for secret documents or secrecy are spelt out in the Act. In the field of financial markets supervision, documents concerning information on activities of financial markets are considered secret if the release of the documents would impair market reliability and stability. Documents containing findings on on-site inspection are also defined as secret if disclosure would jeopardise supervision or, without justifiable reason, have harmful effects on the institution subject to inspection. Thus the Act leaves the disclosure of the findings of inspection reports to the discretion of supervisors.

As part of the last mentioned objective (6) (to increase the accountability of the supervisor) the FSA is aiming to inform (through organised meetings) institutions subject to supervision of the requirements imposed
on them as well as of any forthcoming projects. All this is seen as a way of making the supervisor commit himself to ex ante principles and enabling supervised institutions to assess the fairness and impartiality of the supervisor. As regards an active role in the financial markets, the aim of the FSA is to take a stand on the developments in the sector as a whole and from the stability or systemic risk point of view in particular.

**Conclusions and some comparisons**

The Finnish FSA is in the process of disclosing ex-post, rather than ex-ante supervisory actions, both positive and negative. The disclosure approach is based on two principles. The first is to make the supervisor committed to ex ante procedures and keep financial institutions informed about the procedures. The second relates to the ‘real’ disclosure of supervisory actions. It remains to be seen which cases will turn out to be the most discrete ones from the disclosure or commitment point of view, and how far-reaching the consequences of the FSA approach will be. The forthcoming Act on disclosure requirements of public authorities also lays the ground for increased transparency, although it is too early to anticipate the real consequences of the Act as that will depend on case-by-case interpretations.

It is worth noting that the Act on Financial Supervision does not include any legal mechanisms for increasing the accountability of the FSA. The actions described above are based on voluntary decisions made by the FSA. In addition to the requirements of the forthcoming general Act on disclosure of documents of public authorities, the only statutory requirement relates to the obligation to disclose the annual accounts of the FSA. This approach differs markedly from that of the draft Bill for the UK statutory requirements.\(^5\) Given that the proposed Financial Services and Markets Bill gives the UK FSA substantial discretion in the use of its rights and powers, the accountability of the supervisor is clearly emphasised in the Bill. The accountability mechanisms include:\(^6\)

- the scope of judicial review;
- public reporting mechanisms to the Treasury;
- requirements for consultation;
- the creation of Consumer and Practitioner Panels;
- independent review of the rules and decisions of the FSA;
- independent investigation of complaints against the FSA; and
- independent appeals and enforcement procedures.

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\(^5\) See a short review of the requirements of the Financial Services and Markets Bill in the paper by Llewellyn (1999).

\(^6\) See Llewellyn (1999).
One reason why the aim of disclosing the supervisory actions of the Finnish FSA is to contribute to a true and fair view of supervised entities, rather than to increase the accountability of the FSA himself, might be the lack of statutory requirements in favour of accountability. In this respect, the UK approach is preferable.

However, Finland, like all other countries, still has quite a long way to go in establishing new disclosure regimes for supervisors’ activities. In addition to decisions on the content and scope of disclosure, the supervisor has to decide on the timing of disclosure. The supervisor may be faced with certain situations, particularly when it comes to critical findings that come to light in the course of supervision or inspection, where immediate disclosure would create problems for the institution being inspected. However, the sooner action is taken the better are the chances for well-timed corrective measures. Disclosure supports effective action by disciplining management to respond immediately to restore confidence in the institution.

At this stage I cannot give a specific answer to the question of where and when disclosure creates more problems than it solves. Lessons from the past nevertheless show that there are market participants who are used to taking an overly conservative attitude towards disclosure and they use the threat of potential negative consequences as an excuse for not disclosing information. Thus supervisors should take a critical look at proponents of non-disclosure in an effort to uncover the real motivations behind their arguments against disclosure. All in all, the successful disclosure of supervisory decisions and actions assume that the country has created a level playing field and implemented internationally accepted accounting principles. It also assumes that the financial markets interpret disclosed information sensibly.

5. The applicability of the incentive-based corporate governance framework for different countries

The incentive-based corporate governance framework described in this paper is assumed to function best in well-developed markets, where market discipline functions effectively to provide incentives for various agent groups. Without effective and competitive markets, market-based disclosure looses most of its effect.

However, at a general level, I do not see any reason to give up the incentive-based corporate governance approach as an effective tool for achieving a more stable financial system, even in less developed markets,
for example those of the transition economies. This is because I do not believe that people in, say, Russia would behave at variance with the assumptions of individual rationality. Taking the rationality assumption as an innate behavioural postulate, the outcome is that legal rules - even in Russia - should be based on the premises of clear cut rules of responsibility and sanctions in the event of non-compliance. Formal sanctions should be preceded by step-by-step tightening procedures to give parties a chance to take corrective actions before legal penalties are imposed. However, there are points of view, which lead to the conclusion that the framework described in this paper is not as such applicable to economies with a different level of market efficacy.

I have to confess that I cannot draw an all-things-considered picture on the good corporate governance of countries in various stages of economic development. The most I can do is raise questions or point out issues that are of more importance than others. For instance, the sequence of the importance of various actions may be different in less developed countries than in advanced market economies.

In the absence of effective enforcement systems in the form of competitive markets it is not possible to emphasise market discipline and ways in which governance should mimic market discipline. Reliance on disclosure will fail, not only because actual legal constraints against misbehaviour are weak but also because external economic, cultural and market-based constraints are weak or absent.

This puts pressure on basic legal rules and institutions, together with efficient implementation of those rules and enforcement systems. One feature that the legal systems of some transition economies share, especially in relation to their financial markets, is that legal rules (e.g. rules on capital adequacy) may give an impression that systems are very much in line with western standards. However, in the absence of well-functioning implementation and judicial enforcement, the actual impact of legislation remains very weak. Thus the existence of adequate corporate and banking legislation, accounting standards and auditing requirements are not alone sufficient. Rather, there is a great need to increase the integrity and credibility of the accounting and auditing profession, supervisors, regulators and even courts.

One way to increase integrity is to increase the accountability of the above mentioned bodies. This leads to the need for increased disclosure and assessment requirements concerning the duties and decisions of different bodies. It also increases the need to limit the discretion of authorities by making themselves commit to ex ante procedures. The
question of ‘who monitors the monitors’\textsuperscript{52} is a thorny one in advanced economies, but exacerbated still further by the weakness of general oversight capabilities in transition economies, be it a question of the capabilities of laws, institutions, authorities, information or codes of conduct.

Thus, there is more need for an intrusive regime with incentive based rules rather than self imposed codes of conduct. In the last mentioned case, the codes must definitely be backed up by effective enforcement.

6. The role and responsibility of the central bank

One of the primary responsibilities of central banks is the maintenance of financial market stability. However, there are differences in the implementation of this responsibility in practice. The differences are mainly due to the basic functions of central banks as well as to the institutional structures of supervision. The purpose of this paper is not to delve into the issue of the role of central banks in promoting financial stability,\textsuperscript{53} but rather to raise some concrete questions as to what might be the optimal way to promote well-functioning corporate governance.

The starting point is the fact that corporate governance, as part of the legal infrastructure, is seen as a key factor promoting financial market stability. The importance of incentive-focused corporate governance has been accentuated in connection with the financial markets’ crises of the last decade. The problems of emerging market economies provide further support for this view, and emphasise the implementation and enforcement aspect. Thus we are concerned with the question of whether central banks should take a more active role in ex ante promotion of robust structures or whether the established division of labour between, say, the Ministry of Finance and the FSA, can be regarded as optimal.

As examples of the somewhat different roles of central banks in the oversight of financial markets, I cite the procedures established in Scandinavian countries. These countries are not an entirely homogenous group owing to their different status in the European Union. However, all of their central banks have ‘the promotion of financial stability and the reliability of financial markets’ as one of their main functions, either in practice or specifically stated in their governing acts. The promotion of the stability of the system is interpreted as meaning that the central banks

\textsuperscript{52} See Frydman et al (1996)

\textsuperscript{53} The role of central banks in maintaining financial stability and, in particular, the division of labour between central banks and other supervisory authorities is discussed in more detail in the paper by Christian Hawkesby ‘Central Banks and Supervisors: The Question of Institutional Structures and Responsibilities’.
are responsible for financial markets oversight, while the separate supervisory authorities carry out supervision of individual institutions. Finland, Sweden and Norway publish somewhat differing reports on financial system stability while Iceland and Denmark do not publish anything. Sweden has chosen the most transparent approach. On the basis of a semi-annual ‘Report on Financial Stability’, they state the views of the central bank on strategic risk, credit risk, and counterparty risk, together with an assessment of macroeconomic development. Openness is considered to be a way to increase the accountability of the central bank and make banks take corrective actions more quickly than would be the case if there were no open discussion. However, it is not clear what the reactions would be of, say the Swedish central bank, if they anticipated systemic problems in financial markets.

All in all, it is not even clear how policy-oriented (including the legal policy approach) the oversight role of different countries’ central banks is. And it is impossible to say how policy-oriented their role should be. Intuitively, and being aware of the strong macroeconomic expertise of central banks, I would assume that central banks are more inclined to use economic indicators for assessing financial stability, rather than analysing legal policy implications based on research work using both law and economics. A conventional view is to regard this issue as falling within the remit of the Ministry of Finance and whoever carries out financial supervision, as opposed to central banks. However, if we accept the key role corporate governance plays in financial sector stability, this area should be of particular interest to central banks, too. The more ex ante preventive central banks want to be, the more focus they should put on policy studies and recommendations with regard to well functioning corporate governance as part of financial stability.

7. Summary

This paper is based on the premise that corporate governance, as part of a country’s legal infrastructure, is highly relevant for the stability of financial markets. This view has gained more and more supporters given the lessons learnt from the financial crises of the last two decades. It is widely accepted that a framework of good corporate governance should be based on incentives to induce various agent groups to be committed to their duties. In this paper I have backed this conclusion up with economic and legal theories. Problems arise, however, in the actual implementation of an incentive-based corporate governance framework in different economies, and even within one country. This is because studies have not been able to demonstrate that one single framework is clearly better than another. What we do know is that the more efficient financial markets
are, the more we can rely on market discipline as an effective incentive for bank directors, management, shareholders and supervisors.

As regards the incentives of the management for prudent behaviour, banking crises have taught us, among other things, that the confusion regarding the principal-agent relationships between the management and the board can result in serious negative outcomes, such as unsound risk taking by management. The more levels of control the bigger the agency problems. This paper supports the approach of a one-tier board structure with highly qualified non-executive board members as a majority. This applies both to banks and ordinary companies, be they private-owned or state-owned.

The accountability of supervisors should also be emphasised as a response to lessons from banking crises. This can be done in several ways as the examples of the Finnish and the UK FSA show. However, the disclosure of supervisory decisions and actions as well as statutory requirements for accountability mechanisms need not be seen as mutually exclusive but rather as complimentary for the overall increase of the effectiveness of supervision and the stability of financial markets.

The promotion of well functioning corporate governance should also be in the interests of central banks. The more ex ante preventative approach central banks adopt the more one would expect them to focus on promoting a well functioning corporate governance as part of financial stability.

References


Financial Consolidation and Conglomeration: Implications for the Financial Safety Net

Indrek Saapar, Bank of Estonia, and
Farouk Soussa, Bank of England*

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References

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1. Introduction

The last decade has seen a trend in industrialised countries toward financial institutions growing bigger in size and getting involved in several financial activities, predominantly through mergers and acquisitions (M&As). This is precipitating change in the balance sheet structure and risks of financial institutions, creating new challenges both for them and the central banks and supervisors entrusted with safeguarding financial stability.

These challenges include ensuring that the organisational structure of these mega-banks enables the proper management of risks, that the stability of the financial system as a whole is uncompromised by these developments, and that the regulatory and supervisory framework, including safety-net arrangements, adapts to the changing financial landscape.

This paper will address, in part, these challenges. In section 1, it will examine the trend in M&As both within the banking industry (consolidation) and across financial services industries (conglomeration). The main risks arising from this trend, both at the institutional level and at the system-wide level, will be outlined in section 2. Finally, section 3 will discuss the policy implications of this trend and its risks, focussing on safety-net issues.

2. The changing nature of banking

2.1 The traditional role of banks

What banks do and why they exist has been a long-standing question in economics. The early theory (e.g. Gurley and Shaw, 1960) stresses the importance of fixed transaction costs in the acquisition of assets (i.e. brokerage costs etc.) as a justification for the existence of banks. This theory argues that banks, by taking advantage of economies of scale, are able to carry out transactions for borrowers and lenders at a lower cost than would be otherwise possible. Specifically, the pooling of depositor resources gives the bank a size advantage that allows it to achieve maturity transformation and risk reduction at a lower marginal cost than individual borrowers and lenders would be able to achieve on the open market (see also Benston and Smith, 1976).

More recent theories are based on the fact that financial markets are characterised by incomplete and asymmetric information; agents do not
have complete and equal access to information about investment opportunities (Lewis, 1991). This is the basis for the existence of certain costs – search costs, verification costs, monitoring costs, and enforcement costs – associated with entering and carrying out financial transactions that make it hard for agents to participate directly (Heffernan, 1996). These theories argue that banks exist as a means of reducing these costs to individual borrowers and lenders in financial markets.54

All in all, these theories of financial intermediation describe banks’ traditional role as taking deposits and issuing loans. This role has changed substantially in recent times.

2.2 Changes in banking

In recent decades there has been a rapid and consistent increase in technological innovation which has enabled financial decisions to be made faster and at a lower cost. This has reduced transaction costs and improved the availability of information (Mishkin and Strahan, 1999). Moreover, technological progress has induced financial innovation with the introduction of new products and markets, such as derivatives.

The result has been a marked increase in competition on two fronts in the banking industry (White, 1998). First, the reduction in transaction costs and the greater availability of information, while increasing the importance of capital markets, has diminished the need for intermediation and threatened the traditional role of banks, particularly with respect to financing large firms who have access to capital markets (Allen and Santomero, 1996). Figure 1 shows the decline in the dominance of traditional banking in the United States, where this process is arguably more advanced than elsewhere. The share of total financial assets held by US depository institutions has almost halved in the period 1980-1998, from 58% to 31%. In comparison, the market share of mutual funds has increased from 4% to 21% and the share of pension funds from 18% to 28% over the same period.

54 See, for example, Diamond (1984), who characterises banks as ‘delegated monitors’.
Figure 1  Changes in relative shares of total financial intermediary assets in the US market over 1980-1998, (%)

Table 1 below shows a similar trend in Europe. The far right column shows that the relative importance of banks vis-à-vis other financial intermediaries has decreased in the period between 1995 and 1997.

Table 1  The relative importance of financial intermediaries (insurance and pensions, investment funds and credit institutions) in selected European countries – expressed as % of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>1995 Absolute Value as a % of GDP</th>
<th>1997 Absolute Value as a % of GDP</th>
<th>change in relative importance 1995-1997</th>
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<td></td>
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</table>

Source: ECB (1999)

Second, increased competition and the decline in traditional banking has also been due to the fact that technological innovation has lowered entrance barriers into banking. Internet banks, for example, have become increasingly prevalent as the start-up cost of an internet bank is very
small in comparison to a ‘bricks and mortar’ bank. Also, where law has not prevented it, non-banks have been able to capitalise on reduced entry costs by engaging in traditional banking activities (credit facilities, deposit taking etc.). For example, supermarkets (such as Sainsbury’s in the UK) are providing banking services, as are insurance companies (such as the Prudential in the UK, which has set up an internet bank called Egg). Even where laws are in place designating institutional barriers between banks and non-banks, technological innovation has precipitated the development of financial products that could circumvent such laws.

Contrary to the examples in the preceding paragraph of start-up internet banks and supermarkets entering banking, the process of technological innovation, disintermediation and increased competition has manifested itself largely in a marked increase in M&A activity. This activity may be driven by the desire on the part of banks to capture the economies of scale that technology provides, because it lowers costs (increasing optimal size) and because large investments are required to develop, maintain and update technology. It may also be a defensive reaction to the newly competitive environment banks have found themselves in; in a non-competitive banking industry, it is easier to maintain profitability with excess capacity, inefficiency, and under-performing assets, all of which may be remedied through consolidation (Berger et al, 1999). Indeed, Hoenig (1999) argues that in the US in the late 1980s and early 1990s, the elimination of weak or problem institutions from the market was achieved efficiently through bank consolidation. But M&A activity can also be aggressive, with banks and non-banks trying to break into each others markets, or trying to obtain a size advantage over competitors.

The net result is that M&A activity has increased greatly both in the US and Europe in recent years. Evidence of this is apparent in the marked reduction in the number of banks both in the US and Europe. In the US, Mishkin and Strahan, (1999) calculate that the number of banks dropped by a third from 9,881 to 7,152 banks in the period 1988-1998. White shows that the same trend can be seen in Europe, where the number of banks has decreased from 11,061 to 7,478 banks,\(^5\) or by 32% between 1980 and 1996.

One result of this is that banks have become bigger relative to the financial system. Table 2 provides some evidence that banks are getting bigger. The three columns on the right hand side show that the change in size of the top 5 banks relative to the rest has been positive in most

\(^5\) Includes banks of Austria, Belgium, France, Germany, Italy, Netherlands, Spain, the UK and Switzerland.
instances over the last two decades. This may have significant policy implications, as discussed below.

Table 2 Concentration – Assets of five largest banks as a percentage of total assets

<table>
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<td>LU</td>
<td>31.06</td>
<td>26.83</td>
<td>21.23</td>
<td>21.81</td>
<td>22.43</td>
<td>-20.87</td>
<td>+2.73</td>
<td>+2.84</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>13.91</td>
<td>16.67</td>
<td>16.08</td>
<td>16.68</td>
<td></td>
<td></td>
<td>-3.54</td>
<td>+3.73</td>
<td></td>
</tr>
</tbody>
</table>

Source: ECB (1999)

M&As between banks and non-banks have also been important in recent years. Table 3 below shows the share of M&As (measured by value of target institution) broken down by acquirers and targets within the US and across Europe (Berger et al, 1999). According to the table, only 4% of all M&As in the United States was attributable to cross-industry activity, the majority of this being banks buying non-banks. This is due to the fact that financial activities have been kept separate by the Glass-Steagall Act in the US (although this is likely to change given the passing of the [Gramm-Leach-Bliley Act in November 1999 – see Section 3.3 for more detailed discussion of regulatory regimes]. In Europe, however, where the Second EC Banking Directive effectively made universal banking the norm, bank M&As with non-banks account for 26% of total M&A transactions. These are split roughly evenly between banks acquiring non-banks and vice versa.
Table 3 Values of Target Institutions in Merger and Acquisition Activity in Financial Services 1985 to 1997

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks and banks M &amp; A</td>
<td>96%</td>
<td>74%</td>
</tr>
<tr>
<td>Banks and non-banks M&amp;A</td>
<td>4%</td>
<td>26%</td>
</tr>
<tr>
<td>o/w banks buying non-banks</td>
<td>75%</td>
<td>42%</td>
</tr>
<tr>
<td>Non-banks buying banks</td>
<td>25%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Source: Berger et al (1999), Table 4

But since universal banks were already common in Europe, the interesting question there is to what extent has the emphasis changed from traditional banking activities to non-traditional banking activities in these universal banks? Figure 2 is based on a sample of 74 large OECD banks (assets of £100bn or more) for the period 1991-1998.\(^{56}\) It shows that the share of customer loans in these banks’ total assets has fallen by 6% in this relatively short period. This is contrasted with a sharp increase in the share of securities portfolio, which has grown from 9% to 18% of total assets in the same period. Although lending has remained the main activity for monitored big banks, the nominal growth of securities portfolio exceeds that of lending activities over the period 1991-1998 (growth rates for loan and securities portfolios were 73% and 314%, respectively).

![Figure 2](image)

Source: Fitch IBCA

On the liability side, the figure shows that both total deposits and customer (retail) deposits as a share of total liabilities have declined by

\(^{56}\) The data are compiled on year-end basis from the Fitch IBCA database.
8% and 6%, respectively. Again, this is contrasted with a growth of the share of money market funding from 6% to 11%.

Figure 3 indicates that the relative share of revenue from ‘traditional’ activities such as lending is declining vis-à-vis that from securities trading and other market transactions in the period 1991-1998. Net interest revenue as a share of total revenue has declined by 9%, while the shares of net trading income and net commission revenue have increased by 5% and 6% respectively.

![Figure 3 Composition of banks' total net revenue over 1991-98](image)

Source: Fitch IBCA

3. Consolidation, conglomeration and risk

3.1 Consolidation and larger banks

Increased complexity due to conglomeration aside (this is discussed in the next section), consolidation has, as shown earlier, resulted in larger banks. These banks are bigger examples of what existed in the past, but their riskiness, both risk of failure and risk that their failure will have systemic consequences, may have changed.

There are a number of arguments why large banks may be more risky than small ones. For example, their size may make them less adaptable to changes in market trends, making them leviathans when an industry develops. But the argument most often used is that large banks actively pursue higher risk strategies due to their status as ‘too big to fail’. That is, that they are insured against failure and thus there is a moral hazard problem that induces them to take greater risk.
However, as Soussa (2000) shows, counterbalancing these arguments are a number of other considerations. Large banks are better diversified geographically and across industries, are better placed to lend to larger, less risky corporations, and can afford more sophisticated risk management systems. As far as the moral hazard problem is concerned, any support to a bank that is TBTF can be designed in such a way as to punish shareholders and managers, reducing their incentive to count on such support. Furthermore, large banks may be subject to greater supervisory scrutiny.

Overall, the balance of the evidence suggests that large banks do not take on greater risk than small banks. However, even for a reduced level of riskiness, in the event that failure occurs, systemic risk may have increased. This may be due to increased interlinkages between banks, as fewer larger banks dominate the system, or due to the fact that the failure of a larger bank will represent the failure of a greater share of the financial system. Unfortunately, there is little empirical evidence on this topic.

3.2 The mixing of activities: implications for risk profiles

Does conglomerisation increase or decrease the riskiness of financial institutions? Part of the answer, of course, is the nature of the businesses being merged. For example, if underwriting securities is more risky than traditional banking activities, one might expect that an increase in such underwriting by banks would increase the overall riskiness of those banks.

As discussed earlier, banks’ traditional activity has been to convert liquid short-term liabilities into long-term assets. This makes banks vulnerable to a number of risks. On the asset side, loans carry credit risk. On the liabilities side, the fact that deposits are normally payable on demand subjects banks to liquidity risk because of uncertainty in customer behaviour and long-term loan commitments. The maturity mismatch between assets and liabilities exposes banks to interest rate risk and makes them vulnerable to runs as these could lead to insolvency if a bank has to sell its assets at depressed ‘fire-sale’ prices to refinance the withdrawals (Diamond and Dybvig, 1983).

Insurance companies, by contrast, have historically been in the business of converting long-term illiquid liabilities into short-term assets, typically marketable instruments. They are thus not vulnerable to liquidity crises (Goodhart et al, 1998). However, insurance companies are exposed to market risk in the value of their assets, as well as the risk of
‘catastrophes’ that require large payouts to their liability holders. Nevertheless, because their assets tend to be less risky (government bonds etc.) and because ‘catastrophes’ are infrequent, insurance companies are generally regarded as less fragile than banks.

Securities companies have both assets and liabilities that are short-term and whose value is, unlike banks, marked-to-market on a daily basis, reflecting their true financial position (Goodhart et al, 1998). An increase or decrease in the market value of assets will automatically be accompanied by a correction in the value of liabilities. The nature of their assets therefore implies that they are robust in the face of liquidity shocks. Their main risk is market risk – excessive declines in asset values – and these risks are typically managed through engaging in various, flexible financial instruments such as derivative products.

The different risk profiles of these three types of firms are an important consideration in assessing what the riskiness of a merged entity will be. Below, we will discuss the implications of the merging of banking with insurance activities and with securities activities. In particular, the benefits such mergers represent will be weighed against the costs.

Banks and insurance companies

A potentially large benefit from combining banking and insurance activity lies in the fact that it can decrease the vulnerability of banks to runs since it may reduce the volatility of liabilities. Furthermore, if the combination of banking and insurance is in separate yet affiliated firms, the liquid asset structure of the insurance firm can act as a potential source of liquidity for the parent or affiliated bank.

Several studies have described favourable outcomes of mixing banking and insurance activities. Saunders and Walter (1994), for example, argue that combining banks with insurance companies in the US would reduce overall risk. Also, Llewellyn (1996) concludes that combining banks and insurance companies has increased competition and diversification in the UK. Moreover, Santomero (1996) argues that banks, in creating insurance products, gain fee income (needed to replace declining interest income – see above) without posing significant costs, as information on potential clients is available internally.

The downside of mixing banking and insurance activities is that this runs the risk of a clash between opposing risk management cultures: in banking, risk management is dominated by concerns about asset quality, while the principal source of concern in insurance is the behaviour of
liabilities (White, 1998). Given such different management approaches and operational procedures, combining these two activities within a single administrative entity may increase that entities operational risk (i.e. risk of some form of costly administrative mistake).

**Banks and securities firms**

There have been several opposing conclusions drawn in relation to the impact of mixing banking and securities business. The main argument in favour of this is that the traditional mismatch of assets and liabilities in banking is reduced as the share of marketable securities increases. This, in principle, makes banks less vulnerable to liquidity shocks. Other arguments in favour of mixing banking and securities activities include providing banks with an alternative source of income and diversification options during a period of disintermediation (Santos, 1998) increasing the scope of securitisation, which removes credit risk from banks’ balance sheets.

There are two main arguments against banks entering the securities business. First, a conflict of interest may arise. Within the bank, for example, the sales team could promote securities that the bank has underwritten to their clients at the expense of better market opportunities, or, as a trust fund manager place unsold securities in funds it manages. Furthermore, it may have the ability to design deals aimed at transferring bankruptcy risk to outside investors, e.g. issuing securities on behalf of the troubled borrower to enable the borrower to repay their loan to the bank (Santos, 1996).

Second, because accounting practices require security values to be marked-to-market, banks’ balance sheets can become more exposed to market risk and therefore more volatile. Furthermore, higher asset liquidity may create “the paradox of liquidity” (Myers and Rajan, 1995). That is, increased liquidity may lead to more active securities trading by banks which may increase their overall risk and thereby reduce the attractiveness of their debt.

Brewer, Fortier and Pavel (1989), using a hypothetical merger approach, have found that entering into securities business will increase banks’ daily return variance, and hence, riskiness. Boyd, Graham and Hewitt (1993), and Santomero and Chung (1992) also conclude that this combination would lead to increased risk of failure.

In conclusion, it is hard to say whether the mixing of different activities increases or reduces overall risk. An important consideration is whether
the risk from one type of activity will be transferable to the other – this will depend, in part, on the organisational structure of the firm.

3.2.1 The organisational structure of conglomerates

Another risk associated with conglomerisation is the threat of ‘internal contagion’. This may be from direct financial exposures between the different activities within the conglomerate (if the institutional structure allows such exposures) or from a subsidiary leaning on external equity financing from the parent when it suffers losses (Goodhart et al, 1998). Equally, problems could arise from loss of market confidence towards one or several companies in a conglomerate – ‘reputational contagion’ – because of identical brand recognition, similar management and consolidated financial reporting (Talley, 1992).

An example of the former is given by the failure of Barings in the UK in 1995. In that case, losses in its Asian subsidiary had a direct impact on the parent company, rendering the entire institution insolvent. An example of reputational contagion is that of Beverly Hills National Bank (US) in 1973, when the real estate sector problems of its holding company caused a run. Does the institutional design affect these kinds of contagion?

There are three organisational structures that combine banking and non-banking activities. Two of them - the ‘German’ and ‘British’ model – fall under the heading of ‘universal bank’. The third of these is the ‘US model’, or the bank holding company model (BHC) (Herring and Santomero, 1990).

The German model refers to a bank’s ability to engage in a variety of financial activities within a single legal entity, which allows the pooling of resources between the bank’s different activities and the production of several in-house products. This enables potentially large institutional cost savings, but also increases vulnerability to internal contagion effects since there are no institutional barriers between activities; losses in trading, for example, translate directly into losses for the bank as a whole.

The British model is one in which banking and non-banking activities in this model are separated into subsidiaries within the banking group. Although this reduces somewhat the cost saving benefits of the pure German model, the British model in principle reduces contagion effects, as there are more clearly defined institutional barriers between activities. Herring and Santomero (1990) argue that this model allows
conglomerates to benefit from most of the advantages of engaging in different activities, while limiting the disadvantages.

Finally, in the US model, independent banking and non-banking subsidiaries are functionally separated and operate under a holding company’s ‘umbrella’, which oversees the portfolio of activities. The BHC, therefore, theoretically benefits least of all the models from cost savings in providing different financial services, but has institutionally separate financial activities and therefore should have the least likelihood of internal contagion.

There is thus a trade-off between efficiency (cost savings) and the likelihood of internal contagion, with the German model putting most emphasis on efficiency and the US model on stability. Be this as it may, all three models are vulnerable to potential reputational contagion. Therefore, it is difficult to specify which of the three models would be superior—it will heavily depend on concrete circumstances. Herring and Santomero (1990) argue that one “…should not attempt to prejudge the question of which structure is the most efficient for providing financial services…entrepreneurs should be given scope to experiment in order to determine which corporate structure best enables them to meet customer needs”.

3.3 Organisational structure in practice

Although in principle financial institutions will choose the most suitable organisational form for carrying out their operations, in practice the organisational structure will ultimately be chosen within the constraint of what is permissible by the existing laws in a given country.

In the US, the BHC model has been, until recently, the only option available for conglomerates due to the Glass-Steagall Act of 1933 and other regulatory decisions that restrict certain financial activities within banks. As a result, US banks have been allowed to directly participate in a much narrower range of activities than those operating in most other G-10 countries (Barth et al, 1997). The past institutional structure of US conglomerates is therefore not very helpful as a guide to the structure preferred in practice.

In contrast, in Europe there is generally free choice of organisational structure. Table 4 shows that of 14 countries surveyed, 10 have explicit provisions allowing for the establishment of BHCs as well as universal-type banks. However, in only 2 of these countries is the BHC model
widely used, suggesting that, given the choice, banks tend to favour the British or German models over the US one.

Interestingly, there is a stark contrast between the willingness of banks to incorporate securities activities and insurance activities within a single legal entity when permitted to do so. Out of 13 European countries that allowed securities business to be conducted directly by banks, this possibility was used widely in 10. In contrast, although insurance was, to a different extent, allowed directly by banks in 7 countries, in only 2 countries was this widely practised. This appears to indicate banks’ desire to keep insurance functionally separate even if allowed, perhaps suggesting that the difficulty of combining the different cultures of banking and insurance outweigh the potential benefits.
Table 4. Permissible Corporate Organisational Form in which to Conduct Selected Bank Activities in Selected EU and G-10 Countries*

<table>
<thead>
<tr>
<th>Country</th>
<th>Bank Holding Company Permitted</th>
<th>Securities Activities</th>
<th>Insurance Activities</th>
<th>Most Frequently Conducted in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>Bank57</td>
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<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes Bank Holding Company Subsidiary</td>
</tr>
<tr>
<td>Finland</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes &amp; No61</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes Bank Holding Company Subsidiary</td>
</tr>
<tr>
<td>Germany</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No62</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td>Greece</td>
<td>No63</td>
<td>Yes64</td>
<td>No</td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>No</td>
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<td></td>
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<td></td>
<td></td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td>Ireland</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>No</td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No65</td>
<td>Yes</td>
<td>Yes12</td>
</tr>
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<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td>Italy</td>
<td>Yes, widely used</td>
<td>Yes</td>
<td>No</td>
<td>Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes Bank Subsidiary</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>No66</td>
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<td>Yes</td>
<td>Bank</td>
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<td>No67</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bank Subsidiary</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yes, but</td>
<td>Yes</td>
<td>Yes</td>
<td>Bank and Bank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes Bank &amp; Bank</td>
</tr>
</tbody>
</table>

57 Securities activities include underwriting, dealing and brokering all kinds of securities and all aspects of the mutual fund business.
58 Insurance activities include underwriting and selling insurance products/services as principal and as a agent.
59 Securities activities fall under the banking activities, provisions of Section 1 Austrian Banking Act. Hence, such business may be conducted exclusively by a bank.
60 Insurance activities require a licence by the insurance supervisory authority (Ministry of Finance).
61 Insurance activities in Finland may be conducted in the bank as agent but not as principal.
62 Except as agent for insurance companies.
63 Holding companies may own the majority of shares in a Greek bank, but there is no specific legal framework referring to such companies.
64 Only underwriting and custodian services.
65 Only selling insurance products combined with deposits - no insurance risk may be assumed by banks.
66 Only includes selling insurance products and services as agent.
67 Italian banks are not directly involved in insurance activities; these must be conducted by insurance companies subject to specific rules. Banks usually act as an agent of insurance companies, selling product through their branches.
68 Pure holding companies are permitted to incorporate under Luxembourg law, but the statute of a bank holding company does not exist. This type of company is not submitted to any prudential control by any authority.
<table>
<thead>
<tr>
<th>Country</th>
<th>Bank Holding Company Permitted</th>
<th>Securities Activities&lt;sup&gt;69&lt;/sup&gt;</th>
<th>Subsidiary</th>
<th>Insurance Activities&lt;sup&gt;70&lt;/sup&gt;</th>
<th>Subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Directly in the Bank</td>
<td>Bank Subsidiary</td>
<td>Bank Holding Company Subsidiary</td>
<td>Most Frequently Conducted in</td>
</tr>
<tr>
<td>Spain</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>NA</td>
<td>Bank &amp; Bank Subsidiary&lt;sup&gt;71&lt;/sup&gt;</td>
</tr>
<tr>
<td>Sweden</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Bank</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Bank</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes, but infrequently used</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Varies</td>
</tr>
</tbody>
</table>

<sup>69</sup> Securities activities include underwriting, dealing and brokering all kinds of securities and all aspects of the mutual fund business.

<sup>70</sup> Insurance activities include underwriting and selling insurance products/services as principal and as a agent.

<sup>71</sup> Public debt directly in bank and stock exchange in bank subsidiary.

<sup>72</sup> With the exception of selling insurance as an agent, which is commonly conducted directly in the bank.
4. Public policy issues

The appearance of financial conglomerates has had a significant impact on financial safety net issues. In this section, two elements of the financial safety net – lender of last resort (LOLR) and deposit insurance – are discussed.

4.1 Implications for deposit insurance

Deposit insurance serves several purposes. First, it reduces the possibility of bank runs, particularly when it is comprehensive in coverage, and thus prevents liquidity problems that could lead banks to insolvency (through fire-sale of assets). Second, it provides a degree of protection for retail depositors who, for social and political reasons, are not expected to bear the entire burden of a bank failure. Finally, because deposit insurance is a way of allowing banks to fail with minimal socio-political costs, it can be seen as a mechanism for facilitating the exit of poor banks from the banking industry.

The downside of deposit insurance is that it may create moral hazard. First, when the premium paid for the insurance is not related to risk, it gives the bank managers and shareholders incentives to take additional risks. This is because the bank will capture any upside gains from risk-taking while the insurer will cover the losses. Second, deposit insurance reduces the incentive for insured depositors to monitor the bank, particularly when 100% of the deposit is insured. This reduces market discipline and gives the bank an incentive to take more risk.

Cross-industry M&As pose a challenge to policy makers with respect to deposit insurance since, insofar as deposit insurance presents a subsidy to banks, it is difficult to limit this subsidy to the banking activities of conglomerates, particularly when there are no clearly defined institutional barriers between activities. Boyd, Chang and Smith (1998) argue that universal banks are able to capitalise on the subsidy presented by deposit insurance by engaging in riskier non-banking activities. Furthermore, these activities compete with non-banks that are at a disadvantage since they do not benefit from the deposit insurance subsidy. Moreover, the customers of conglomerates could increase their positions towards “insured” companies, thereby weakening market discipline in general (MacDonald, 1998) and giving conglomerates that include a bank a competitive advantage. Regulators have tried to alleviate moral hazard by introducing consolidated reporting, supervision and higher disclosure requirements allowing the monitoring of conglomerate risk.
Another problem with conglomerisation, however, as shown in Section 2, is that it has led to a decreasing deposit share of total liabilities. This implies that other financial liabilities, such as securities, are becoming more important vis-à-vis deposits, and more widely held. This presents a problem to regulators as the arguments for protection of depositors are becoming increasingly valid for other types of liabilities.

One option, therefore, has been to extend insurance coverage to additional financial products and services. The requirement to extend the financial compensation scheme to investment accounts, coming into effect in EU member states from December 31, 1999, may reflect such concerns. Application of deposit insurance-like protection schemes on insurance products may prove to be complicated, however, because of their separate legal treatment from banking within the EU.

Extending the protection schemes to other financial products may also be justified by the fact that financial conglomerates are getting larger. With fewer but more powerful financial service providers in the marketplace, customers have less and less actual possibilities to control and influence their behaviour. Therefore consumers of other financial services should also be provided protection in order to compensate for a lower degree of control over financial conglomerates.

The problem with extending insurance beyond traditional deposit liabilities is that the potential moral hazard it creates would also be extended. Consequently, several authors have argued against ‘protected’ universal banking and for ‘narrow banking’ as a means of reducing moral hazard and the potential costs incurred by insurance schemes.

Mishkin (1998) argues for a type of ‘narrow banking deposit insurance’ (NBDI) that would consist of a certain portion of bank deposits backed by high quality liquid assets in the banks’ own balance sheets. The NBDI scheme would differ from a true ‘narrow banking’ concept as it would not cover all deposits, but it would let clients choose between fully and partially covered deposits. NBDI would mix money market mutual fund and insurance-type activities within a bank - the value of assets would be marked-to-market and compared against the value of certain deposits to provide 100% coverage, thereby, at least to some extent, reflecting the changed structure of banks’ balance sheet.

In essence, NBDI emphasises protecting depositors and the payment system rather than the institution itself, but could reduce the moral hazard in the financial system by the share of ‘narrow deposits’, and provide a

73 For more broad argumentation, see also ‘collateralised banking’ by Edwards (1996).
partial ‘down payment’ into a larger, ‘market-based’ protection scheme. It would not eliminate the need for public protection schemes to cover ‘conventional’ deposits that could be used by the financial institution to finance its more risky and innovative activities.

Similarly, Canals (1997) proposes to limit the moral hazard within universal banks by defining banks’ ‘core business’, which would only include traditional banking activities such as taking deposits, and granting private and small business loans. The deposit insurance would thus cover only the limited range of activities and liabilities (i.e., deposits). Such an approach would reduce the volume of deposits covered by the FDIC in the United States from three trillion dollars to two. That would reduce the pressure on deposit insurance schemes, and lower universal banks’ possibilities to speculate in financial markets with their clients’ money. In theory, for example, such an approach may help to provide (retail) funds to boost financial markets in the EU.

4.2 Implications for LOLR

The ‘classic’ definition of LOLR is the temporary alleviation of liquidity needs of otherwise sound banks during a crisis. Often, however, the LOLR facility is also extended to support failing financial institutions even if they are unsound, because of their systemic importance. Such support reflects the importance of that institution to the functioning of the financial system (see, for example, Freixas et al. (1999)). In this section, this broader definition of LOLR is used.

As with deposit insurance, LOLR creates a potential for moral hazard in that it provides incentives for banks that expect to receive support to take greater risk. Furthermore, it provides a funding subsidy that gives such banks a competitive advantage over smaller banks and non-banks (see Soussa (1999) for a discussion of these issues).

Both consolidation and conglomeration present problems in terms of the practice of LOLR. First, as discussed earlier, consolidation (and conglomeration) have resulted in larger financial institutions, making the likelihood that LOLR support would have to be resorted to increase. In effect, more and more financial institutions may become thought of as ‘too big to fail’ – the increased size of firms increases the likelihood that their failure would have a disruptive impact on the financial systems in which they operate.

Second, conglomeration presents a problem for the practice of LOLR because it makes harder for central banks to limit the scope of LOLR to
the original banking institutions. That is especially true when there are no clear institutional barriers, as is the case with universal banking (Herring and Santomero, 1990). This problem is worsened by financial legislation that encourages such banking structures. Draghi (1992), for example, argues that the introduction of the EC Second Banking Directive has allowed banks to opt for the universal model. LOLR, therefore, has been extended *de facto* to other financial activities within the universal bank. As a result, the choice of universal banking is not simply a matter of organisational efficiency, but is partly spurred by the desire to capitalise on the extension of LOLR to all activities of the banking group.

To try to prevent this happening, regulators have made an effort to keep institutions separate by establishing intra-group ‘firewalls’. These include (i) strict quantitative limitations on intra-group loans and other extensions of credit and asset purchases, (ii) requirement to carry out all transactions with affiliates on ‘market terms’, and (iii) provisions to prevent the parent or holding company extracting excessive dividends or taxes from subsidiaries (Talley, 1992).

It should be noted that supervisors might create constructions that enable overriding “firewalls” in a crisis situation. For instance, the ‘source-of-strength’ doctrine introduced by US regulators in FIRREA\(^74\) (1989) states that in the event of financial distress, regulators are permitted to access resources of the holding company and its other subsidiaries to support the banking subsidiary (Herring and Santomero, 1990). Although introduced in a good faith to increase BHCs’ responsibilities in a crisis situation, it may in effect lesser the distinction between BHCs and universal banks, reducing the arguably ‘more stable’ features of the BHCs.

In some situations conglomerates may have internal incentives to maintain firewalls. In the case of acquisitions, some degree of corporate separation may be maintained voluntarily by the conglomerate in order to profit from the reputational capital of a target company. Several subsidiaries of international conglomerates do not bear their parents’ name because of their ‘reputational value’ in local markets. Corporate separation may, in turn, facilitate managerial control, as managers of separate business units are interested in their company’s performance only (Herring and Santomero, 1990).

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\(^74\) Financial Institutions Reform, Recovery and Enforcement Act.
Conclusions

Consolidation and conglomerations, predominantly through M&As, have been driven by several factors, primarily technological innovations that have increased competition and forced deregulation. They have enabled the entrance of non-banking financial companies into the market, caused banks’ market share to decline, and induced banks to enter other businesses either on their own balance sheet or as part of a larger financial group.

Consolidation may not increase the risk of financial institutions as it leads to a bigger example of what existed in the past. On the contrary, there are arguments and some evidence in favour of the fact that larger banks are safer. However, even if this is the case, the failure of a larger bank may have greater systemic consequences, making it a cause for concern for policymakers.

It is difficult to determine whether conglomerisation per se increases or decreases risk within financial institutions, but it is evident that combining ‘traditional’ activities into a conglomerate may change the nature of the organisation. As reflected by the findings of some existing research, most of the concern seems to lie in banks’ alliances with securities companies. Such a combination makes banks’ balance sheet structure more liquid and vulnerable to market fluctuations. On the other hand, insurance is viewed of having a stabilising effect when combined with banking.

Applying different organisational structures may reduce the risk of internal contagion but would leave the organisation open to reputational contagion. In practice, banks tend to undertake securities activities directly within banks, whereas insurance activities are conducted through subsidiaries. An additional concern is cross-border conglomerisation that may increase the possibility of contagion from one financial system into another.

With respect to the financial safety net, conglomerisation may deepen moral hazard of both deposit insurance and LOLR facilities by creating a perception of covering other activities besides banking within the group. The declining trend of banks’ deposit financing may result in deposit insurance-like protection schemes applying to other financial products. Alternatively, such protection could be narrowed down to more specific accounts by applying NBDI schemes, or by defining the ‘core business’ to be covered.
Moreover, conglomeration affects the use of LOLR since in bailing out big financial institutions, it is harder for central banks to separate banking institutions within conglomerates. This may call for the need to increase co-ordination and the flow of information between public institutions responsible for support operations. An alternative would be to increase corporate separation within conglomerates, especially universal bank-type organisations by applying ‘firewalls’. Internationally, the conflict of interest in the LOLR function is mainly because different size economies may perceive differently the impact of a particular institution on stability of their financial system. Again, ‘firewalls’ could be used within conglomerates to provide separation between domestic and foreign operations.

References


Central Banks and Supervisors: 
The Question of Institutional Structure and 
Responsibilities

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Appendix 1: A single prudential financial supervisor

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Executive Summary

For many countries the central bank assuming responsibility for prudential banking supervision was something that occurred over time. Although it is still most common for the central bank to also be the banking supervisor, over the last decade a number of countries have moved this function outside the central bank. Both the UK and Australia are recent examples of countries that have moved prudential banking supervision and regulation outside the central bank, while merging this role with the supervision of other financial institutions. Japan, Iceland and Korea quickly followed, while others are known to be considering similar reforms.

When assessing the costs and benefits of a supervisory structure, policy makers have to take a number of factors into account, including:

- the cost of performing supervision;
- the efficiency of supervision;
- the effectiveness of supervision; and,
- the implications of any choice for monetary policy.

If there are cost reduction benefits in merging supervisors, and the resulting overlap in the roles of the prudential supervisor and the central bank is kept to a minimum, it is likely that the costs of performing supervision will fall. Furthermore, moving to a single supervisor outside the central bank should also improve the efficiency with which supervisory resources are allocated.

By contrast, the implications for the effectiveness of supervision and monetary policy seem more uncertain. In theory the relative effectiveness of the supervisory structure in averting and managing financial crises seems to be largely dependent on whether the synergies between banking supervision and central banking are more or less important than those between financial supervisors of different functional activities. Similarly, the implications for monetary policy seem to depend on whether banking supervision creates conflicts of interest, threats to credibility and acts as a distraction, or whether it is in fact a useful complement to monetary policy.

At a very general level it is difficult to conclude whether the economic benefits of moving prudential banking supervision from the central bank to a single prudential supervisor outweigh the costs. However, there are a number of country specific economic factors that may tend to make one institutional structure of financial supervision more appropriate when
compared to the alternatives. For example, for developing countries the central bank may have to be given responsibility for prudential banking supervision for this role to be sufficiently effective and free of political influences. Similarly, given that the emergence of financial conglomerates is one possible factor motivating the need for a single prudential supervisor, financial system structure should also be taken into account when choosing the supervisory structure.

Finally, given the degree of uncertainty that surrounds the economic costs and benefits, in reality political factors play a large role in the choice of supervisory structure. Political motivations may be prompted by the country’s recent history, public opinion, political inertia, or concern over the amount of power granted to the supervisory authority.

1. Introduction

Moves to shift the responsibility for prudential banking supervision outside the central bank have focused policy makers’ attention on the choice of institutional structure for financial supervision. This paper looks at the economic and political considerations involved in choosing the financial supervisor. More specifically, it addresses the question of whether a country should entrust responsibility for prudential banking supervision with the central bank, or whether there should be a consolidated prudential supervisor outside the central bank.

The paper first touches briefly on the rationale for financial regulation and supervision, and the different types of supervision there are. The history of the role of central banks in financial supervision and present-day supervisory structures are also highlighted to provide a starting point for the current debate. A framework is then presented to reflect on the costs and benefits of the choice of the prudential supervisor and to help consider which institutional structure is likely to be more appropriate for different countries. The issues of effectiveness, cost, and efficiency of supervision are all considered, as well as the implications for monetary policy. The paper then highlights some country specific factors that should contribute to a country’s decision on the institutional structure of supervision, such as the level of economic development and the extent to which conglomerates play a part in the financial system. Political considerations are also examined.

2. The rationale and types of financial supervision

Before addressing who should act as the prudential supervisor of financial institutions, it is appropriate to briefly summarise the rationale for
financial supervision and the common types of financial supervision\textsuperscript{75}. There are two main reasons most often put forward for financial supervision.

The first justification for financial supervision is to ensure the stability of the financial system as a whole. For example, bank’s liquid short-term liabilities (e.g. deposits) and illiquid long-term assets (e.g. mortgages and other loans) make them especially vulnerable to bank runs\textsuperscript{76}. As a result, even in response to rumours, investors may have the incentive to panic and withdraw their deposits from a bank, resulting in bank failure. Given runs can cause significant spill-over effects on the wider economy it could be argued that there should be some form of supervision and regulation of financial institutions to stop unnecessary panics and costly spill-over effects.

The second justification for supervision is that small retail depositors and investors are less informed and at a disadvantage to adequately monitor the financial institutions they deal with. With this the case there may be a role for a public sector supervisor to act on behalf of these consumers\textsuperscript{77} and monitor the activities of financial institutions, or at least ensure that they are fair and honest with their customers and clearly disclose information on their relevant activities.

The types of financial regulation and supervision undertaken broadly fit into three categories; systemic, prudential, and conduct of business.

Systemic supervision takes a broader view than merely the undertakings of individual financial institutions. Systemic supervision is focused on the health and ability of the financial system to weather shocks, with special regard to the likely impact of financial disturbances on the economy as a whole. In practice, this area of supervision is the domain of central banks, given their knowledge of the macroeconomy, financial markets and payment systems, and their ability to assist in managing threats to systemic stability.

Prudential supervision, on the other hand, looks into the health of individual financial institutions. That is, prudential supervision puts more emphasis on analysing the health of institutions’ balance sheets, especially in regard to whether they have sufficient capital to weather the ups and down of business. Special regard is made to capital adequacy, credit risk, market risk, operational risk and other indicators of prudential

\textsuperscript{75} For a thorough explanation of these issues see Goodhart et al (1998a).

\textsuperscript{76} See Diamond and Dybvig (1983) for the classic representation of a bank run.

\textsuperscript{77} For the sake of consistency, ‘consumer protection’ is used throughout the paper, but could be substituted with depositor or investor protection.
soundness. The aims of prudential supervision can be seen as both consumer protection and reducing the threat of spill-over effects on the wider economy. This latter concern is especially relevant for the larger financial institutions. The choice of location for prudential supervision is the main focus of this paper. More specifically, should the central bank be the prudential supervisor of banks, or should there be a single prudential supervisor covering all financial institutions?

Finally, conduct of business regulation relates to how financial firms do business with their customers. It is more focused on aspects of consumer protection, such as information disclosure, honesty, integrity, and fair business practices. Conduct of business regulation sets rules and guidelines as to appropriate behaviour and business practices when dealing with customers. However, this area of supervision is not a focus of this paper.78

3. The history of the supervisory structures

“The adoption of (a) regulatory and supervisory role was, at least for those central banks founded in the nineteenth century (or earlier), largely a natural and evolutionary development, and not one that they were programmed to undertake from their foundation”. (Goodhart 1988)

In the case of the Bank of England (BoE), when it was established in 1694 it had no responsibility for banking supervision or regulation – it was under private ownership and in competition with other commercial banks. As a result, a supervisory role would have caused a clear conflict of interest between its profit maximising objective and the possible role of organising rescue packages for other commercial banks.

However, this conflict of interest abated as the BoE withdrew from its commercial activities to concentrate on its function as the banker for the government and banking system. Over time, as the BoE occasionally came to the rescue of the banking system in crisis, its supervisory function grew. However, prudential supervision did not become an official mandate until the secondary banking crisis in 1973-74 led to the Banking Act of 1979.79

78 It should be noted that the choice of supervisory structures in the UK and Australia differs. In the UK the Financial Services Authority (FSA) undertakes prudential and conduct of business supervision. By contrast, in Australia, prudential and conduct of business supervision are separated between the Australian Prudential Regulation Authority (APRA) and the Australian Securities and Investment Commission (ASIC) respectively.

79 The BoE Act of 1946 did not outline the role and responsibilities of the BoE in any detail.
In the US the central bank’s responsibility for banking supervision was more deliberate than the evolution of this role in the UK. In fact, the US Federal Reserve System was established in 1913 primarily to help avoid banking crises, after a number of credit crises in the late 1800s and early 1900s. Control of monetary policy, on the other hand, was only gained by the central bank after the 1920s. Before that time monetary policy was largely a product of gold standard rules (Greenspan 1998).

As a result of these beginnings, the US Federal Reserve puts considerable weight on its responsibility for prudential banking supervision. For example, the largest role of the regional offices of the Federal Reserve is that of supervising local banks. Given its history, Goodhart et al (1998a) argue that it would be less likely than the UK or Australia to have this function removed.

By contrast, the Bundesbank was set up in 1957 and granted independence in setting monetary policy so as to fulfil its stated mandate of ‘safeguarding the value of the currency’. Lastra (1996) contends that the Bundesbank was not given direct responsibility for prudential banking supervision so as to remove any possible threat to the credibility of its price stability target. That is, not having responsibility for the health of the banking industry removed the perceived incentive to loosen monetary policy (at the expense of price stability) to support the banking industry in times of trouble. Furthermore, it removed the risk that a banking supervision disaster (of the type that can happen from time to time) would damage the credibility of monetary policy. As a result, inflationary expectations – a key ingredient determining actual inflation – were expected to remain more firmly anchored. Again, history played a large part in this supervisory structure, as it was Germany’s experience with hyperinflation in the 1920s that contributed to price stability being the centrepiece of the central bank’s mandate.

With these three influential supervisory structures in place Goodhart et al (1998b) propose that over the course of history other countries modelled themselves on these examples. Those with closer relationships with Germany adopted its model (for example, Austria, Switzerland and Scandinavia), while others with closer relationships with Britain took its model (for example, Ireland, Australia, New Zealand, Hong Kong and other British colonies)80.

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80 The historical origins of supervisory structures were also illustrated by a survey of developing countries in 1996, of which the majority were old colonies of Britain. In thirty-nine out of the forty countries surveyed banking supervision was the responsibility of the central bank (Fry et al 1996).
Similarly, Lastra (1996) points out that with the structure of the European Central Bank (ECB) modelled on the Bundesbank, the ECB did not assume direct responsibility for prudential banking supervision when it took control of monetary policy for the eleven member countries of the euro in January 1999. Rather, prudential banking supervision has remained the responsibility of individual member countries.

4. Recent developments

In 1998 the UK and Australia joined other countries, such as Canada (1987), Denmark (1988), Norway (1986) and Sweden (1991), in having a single prudential financial supervisor, and locating this supervisor outside the central bank. Since the UK and Australia announced their plans, Japan, Korea and Iceland quickly followed suit. Others such as Estonia, Ireland, Israel, Latvia, Mexico and South Africa are all known to be considering the potential merits of a similar move. In the case of Ireland, for example, a recent official inquiry recommended it create a new supervisory agency to take over all aspects of prudential supervision.

The exact institutional structure chosen by countries moving prudential banking supervision outside the central bank tends to vary. The newly formed supervisor may supervise all, or a combination of, banks, insurance companies, securities firms, and other financial institutions. However, the trend is clear – fewer central banks are now responsible for banking supervision, and new supervisors are being created to supervise a wide variety of financial institutions from one agency.

Despite recent developments institutional structures of financial supervision still differ notably across countries. In fact, as can be seen in Table 1 below, in a survey of 123 countries for which information on supervision is available, Lewellyn (1999) shows that for nearly three-quarters of countries in the sample, prudential banking supervision is still the responsibility of the central bank. Furthermore, the most common model of prudential banking supervision, which makes up around 50 percent of supervisory structures, is for the central bank to supervise banks only.
Table 1. Prudential supervision of banks (1999) percentages

<table>
<thead>
<tr>
<th>Supervisory Arrangement</th>
<th>CENTRAL BANK</th>
<th>NON-CENTRAL BANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks alone</td>
<td>51</td>
<td>6</td>
</tr>
<tr>
<td>Banks and securities</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Banks and insurance</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Banks, securities and insurance</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>


Similarly, Table 2 shows that it is still most common to have separate supervisory agencies for each of banks, insurance companies and securities firms.

Table 2. Supervisory Agencies (1999) percentages

<table>
<thead>
<tr>
<th>PRUDENTIAL SUPERVISORS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Agency - central bank</td>
<td>4</td>
</tr>
<tr>
<td>- other</td>
<td>14</td>
</tr>
<tr>
<td>Separate agencies for each</td>
<td>48</td>
</tr>
<tr>
<td>Banks alone: securities and insurance combined</td>
<td>4</td>
</tr>
<tr>
<td>Banks and securities combined: insurance alone</td>
<td>12</td>
</tr>
<tr>
<td>Banks and insurance combined: securities</td>
<td>18</td>
</tr>
</tbody>
</table>


5. A cost-benefit analysis of supervisory reform

Despite the multitude of different possible supervisory structures, this section focuses on one question. Should the central bank be the prudential banking supervisor, or should there be a single prudential supervisor located outside the central bank?

There are a number of factors that motivate this question above others. First, it is still most common for the central bank to be the banking supervisor. Therefore this seems to be a natural starting point. Second, the UK, Australia and others have moved in recent years to have a single prudential supervisor outside the central bank, highlighting this as an
obvious alternative. Finally, as seen from the last section, this seems to be the question that a number of other countries have been asking.\(^{81}\)

In addressing the effect of different financial regulation and supervision policies it is an important part of any policy assessment to weigh up the costs and benefits of alternative proposals.\(^{82}\) In this section a number of economic issues are addressed to highlight the trade-offs faced by policymakers when choosing the institutional structure of financial supervision.\(^{83}\) Ideally, costs and benefits of alternative supervisory structures would be easily measurable requiring no calls for judgement. However, a number of factors cause significant difficulty in attempting such an approach. First, some factors integral to the analysis, such as the costs of performing supervision under an alternative regime and the indirect costs of supervision, will have to be estimated. Second, and more importantly, factors such as the ability of different supervisors to stop or resolve crises will be difficult to quantify, very uncertain, and influenced almost predominantly by the judgement of the policy maker.\(^{84}\)

Despite these weaknesses it is still worth considering the costs and benefits of the choice of supervisor within a structured framework, as it should help highlight which types of countries are more suited to having a single prudential supervisor outside the central bank. The economic costs and benefits of a supervisory structure can be considered in four main areas.

- The effectiveness of supervision in reducing the chance of a financial crisis and the extent of a financial crisis if there is one.
- The costs of performing supervision.
- The ability of the supervisory structure to allocate resources efficiently.
- The implications of the supervisory regime for monetary policy.

\(^{81}\) The option of having a single financial supervisor within the central bank is not addressed. In a sample of 123 countries in 1999, just Netherlands Antilles, Singapore and Uruguay had supervision of banks, insurance companies and securities firms performed within the central bank. Furthermore, there are economic reasons such as the central bank having to develop skills beyond its core competence of monetary policy and systemic oversight (Wallis Report 1997), and political reasons such as the issue of giving excessive power to the central bank (Goodhart et al 1998a), that tend to discount this model for many countries.

\(^{82}\) For example, in terms of specific supervision policies, in the UK, under the Financial Services and Markets Act, the FSA is expected to have to make public a cost-benefit analysis of any new proposed financial rules or regulations (Alfon and Andrews 1999).

\(^{83}\) For further discussion of the costs and benefits of alternative supervisory regimes see Briault (1999), Llewellyn (1999) or Goodhart et al (1998).

\(^{84}\) In recognition that a full quantitative evaluation of costs and benefits is difficult to achieve and often unnecessary, when undertaking its cost-benefit analysis the FSA estimate the costs quantitatively but only assess the benefits qualitatively (Alfon and Andrews 1999).
Within this structure there are four questions that the policy maker will have to assess when considering the move to a single consolidated financial supervisor outside the central bank.

Question 1: Will the change affect the chance of a financial crisis occurring and the extent of a crisis if there is one?

Question 2: Will the change significantly affect the costs of performing supervision?

Question 3: Will the change significantly affect the efficiency of supervision?

Question 4: What are the implications for monetary policy?

The answers to these questions are likely to differ from country to country. This issue is addressed in Section 6 when country specific factors are highlighted. However, for the purpose of illustration, developed countries such as the UK, Australia, the US and Germany are used as examples in this section. It becomes apparent that, even for these countries, the choice of an ‘optimal’ supervisory structure is not clear-cut.

5.1 Will the change affect the chance of a financial crisis occurring, and the extent of a crisis if there is one?

In a move uncommon in this area of public policy, the Wallis Report (1997) discussed Australia’s shift to a single supervisor prior to the actual policy change. A large part of the Wallis Report’s recommendation for the establishment of the Australian Prudential Regulation Authority (APRA) revolved around the changing structure of the financial industry. In the case of Australia, the Wallis Report concluded, “the financial system today is a far cry from the system that existed when …banking and insurance arrangements were put into place”. For example, in the 1930s banks dominated the financial system. However, more recently the emergence of financial conglomerates had blurred the traditional lines drawn between banks, insurance companies, securities firms, fund managers and other financial institutions. And by 1997 it was estimated by the Reserve Bank of Australia (RBA) that financial conglomerates held around 80 percent of Australia’s financial system assets.

If there are a number of synergies between the roles of prudential supervisors of different financial activities, there may be an increasing need for them to co-operate amongst each other to improve their understanding of the financial institutions they supervise, and hence improve the effectiveness of overall financial supervision. This increasing need for co-operation and co-ordination may justify the establishment of a single prudential supervisor on the grounds of effectiveness. For example, the new supervisor in the UK – the Financial...
Services Authority (FSA) – has taken its establishment as an opportunity to develop a lead supervision approach. Lead supervision involves supervising financial institutions as a whole, rather than supervising the various functions of the institution separately. As stated by the FSA (1999), “financial groups have been integrating their management and controls on a group wide basis, and lead supervision has developed partly as a response to this”.

Despite these advantages, having a single supervisor outside the central bank also poses a number of disadvantages that may tend to reduce the effectiveness of supervision. These largely revolve around the central bank losing the ability to exploit synergies between central banking and banking supervision.

In the process of monetary policy operations, central banks gain valuable information on developments in financial markets, including information about the health of the banking industry. For example, most central banks remain responsible for, and monitor, payment and settlements systems, where banks must settle transactions amongst each other by the end of the banking day. Banks displaying abnormal behaviour or difficulties in this process may highlight deeper financial difficulties. Similarly, central banks that have standing facilities may also witness a bank using these facilities at an unusually high frequency, and this could be an indicator of a bigger (insolvency) problem.

Furthermore, Crockett (1997) highlights that the size of inter-bank exposures in the payments system has led some observers to conclude that a disruption transmitted through the payments system is the largest single threat to financial stability. Having access to such timely, anecdotal information on inter-bank activities provides a valuable complement to the information gained through standard prudential banking supervision, which is less frequent and may become redundant if a significant amount of time has passed since the last up-to-date bank balance sheet was made available.

In commenting on the recent moves by the UK, Australia and others, US Federal Reverse board member Laurence Meyer (1999b) concluded that, “the separation of central banking and supervision is dangerous”. Behind this conclusion was the concern that by losing responsibility for prudential banking supervision the central bank would lose valuable insights into the banking industry gained by practical hands on experience monitoring bank’s balance sheets – insights into the banking industry that are extremely valuable to a central bank if a crisis actually occurs and it is called upon in crisis management.
Both of these weaknesses can be alleviated, to some degree, if there is sufficient co-ordination and information sharing between the supervisor and the central bank\(^85\). However, although such arrangements may be able to limit these weaknesses, it is unlikely they can completely resolve them. For example, there may be legal limitations on information sharing between the prudential supervisor and other parties. As a result, this represents a cost of moving prudential banking supervision outside the central bank.

Another way in which having a single financial supervisor may reduce the effectiveness of financial supervision is if the drop in the number of financial supervisory agencies results in a fall in the quality of overall financial supervision. As highlighted by Goodhart et al (1998a), there may be merit in having a degree of competition and diversity in supervision so that lessons can be learnt from the experiences of different approaches. Furthermore, an extremely cynical view of the ability of financial supervisors would suggest that having multiple supervisors is beneficial, as it increases the chance that at least one of the supervisors will become alert to a threat to financial stability.

However, there are a number of counter arguments that tend to discount the theory that there needs to be competition and overlap between prudential supervisors. For example, it could be that competition between supervisors actually introduces laxity into supervision, especially if financial institutions can choose who they are supervised by. In this case they will simply choose the supervisor that imposes the lowest costs, and this supervisor is also likely to be the most lenient and have the lowest standards. In this sense, to avoid the threat of laxity, the benefit of learning from numerous supervisory approaches will be most applicable where supervisors are covering mutually exclusive areas.

Even if there is just one financial supervisor, international forums and competition between countries should help ensure that supervision is maintained at an international standard. Independent research by academics outside both the central bank and the supervisory agency may also provide a checking mechanism on supervision techniques. Furthermore, a lone supervisor may still be able to experiment with alternative approaches to supervision to judge which of these are more effective\(^86\), and there may also be competition within the supervisory

\(^85\) This is addressed specifically in Appendix 1.

\(^86\) For example, in the beginning of the second half of 1999 the FSA planned to undertake an experiment with group supervision, involving all of the supervisors of a conglomerate being combined into a single team under one manager, instead of merely sharing information with the lead manager who supervises the conglomerate’s predominant financial activity (FSA 1999).
agency. Finally, even if there is only one financial supervisor, making it more accountable for its actions is another way to increase the incentive to supervise effectively.

In summary, it is difficult to conclude whether in a developed country, such as the UK or Australia, moving banking supervision out of the central bank into a single financial supervisor will make financial supervision more or less effective. In theory, the relative effectiveness of the supervisory structure seems to be largely dependent on whether the synergies between banking supervision and central banking are more or less important than those between the supervisors of different financial activities.

5.2 Will the change significantly affect the costs of performing supervision?

By merging separate financial supervisors into one agency it is possible that the costs of performing supervision will be reduced through returns to scale.

In the UK, before the establishment of the FSA there were nine separate financial service supervisors, and Briault (1999) illustrates that it was not uncommon for large financial institutions to report to five of these supervisors. Reducing the numbers of supervisors performing similar and sometimes overlapping roles should reduce the burden imposed on these supervised institutions, and be reflected in lower costs of performing supervision. For example, in the UK the FSA’s costs in real terms are budgeted to be lower in 1999/2000 than the sum of its component parts in either of the two previous years (Briault 1999).

However, even without responsibility for banking supervision, central banks remain responsible for the stability of the financial system as a whole. As a result of these continued obligations, and the fact that the prudential health of some financial institutions can have system-wide consequences, giving direct responsibility for banking supervision to an agency outside the central bank poses the risk of overlap.

As a result, it is not clear that the costs of performing supervision will automatically fall with the establishment of a single prudential supervisor outside the central bank. However, if there are returns to scale that can be exploited and any overlap between the central bank and the supervisor is

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87 This issue is addressed specifically in Section 7.
kept to a minimum it is likely, if anything, that the costs of performing supervision will be reduced.

5.3 Will the change significantly affect the efficiency of supervision?

In a country with an advanced financial system and a large number of financial products available, there may be a number of ways for investors to make financial transactions with essentially the same characteristics. For example, Merton and Bodie (1995) show that in the US there are at least 11 different ways to obtain a leveraged position in the S&P500 stock index. In terms of banking, a simple example would be an investor with the choice of depositing funds in a bank or a credit union. If they are regulated by different agencies there is no formal way to be sure that the relative intensity of regulation is efficient. At the extreme, inconsistent approaches between regulators of similar activities may simply promote the use of the less regulated.

As put by the Wallis Report,

“the case for amalgamating prudential regulation of deposit taking institutions into a single Commonwealth scheme is driven by regulatory neutrality, competition, efficiency, and effectiveness. Where institutions provide similar financial services and products, there is a strong presumption that they are subject to the same regulatory requirements...In some cases the need for regulatory intervention may be slight; in others quite obtrusive. The point is that all institutions providing similar financial services should be regulated with the same framework and with the same objectives.”

Similarly, in respect to the establishment of the FSA in the UK, the International Monetary Fund (IMF 1999) described it as

“an appropriate response to the uneven quality of supervision and consumer protection across various financial sectors, and to the increasing importance of large financial institutions operating across traditional lines of business.”

More generally, with a single financial supervisor, more explicit decisions can be made on the most efficient allocation of supervisory resources. That is, if banks are thought to be more of a systemic threat than non-banks, a deliberate decision can be made more quickly and easily to apply additional supervision to these institutions. By contrast, if the supervision of banks, insurance companies, and securities firms is undertaken from different organisations, often the relative amount of

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88 This conclusion is especially applicable if the institutional structure before the move to a single supervisor contains a complicated proliferation of supervisory authorities.
resources put into these areas of supervision will be more an accident of history and not the subject of continuous review.

However, it should be noted that there is a risk that having a prudential supervisor outside the central bank may tend to impose higher indirect costs of supervision. For example, in terms of the objective of supervision, supervisors outside the central bank may tend to become more focused on consumer protection, rather than financial system stability (especially if the consumer losses following previous financial failures were one of the main reasons for their establishment). With this the case, it could be argued that over time a supervisor outside the central bank might become rather conservative and risk averse in an attempt to increase consumer protection, with the consequence of reducing the efficiency of financial intermediation.

In summary, moving to a single supervisor outside the central bank is likely to provide a more efficient allocation of supervisory resources. However, there is a risk that the indirect costs of supervision could rise if the new prudential supervisor becomes more focused on consumer protection.

5.4 What are the implications for monetary policy?

The implications for monetary policy of moving prudential banking supervision outside the central bank are controversial.

In theory there are a number of potential conflicts of interest in a central bank having responsibility for prudential banking supervision that may damage the credibility of monetary policy. For example, the central bank may be perceived to have the incentive to loosen monetary policy to support a bank, or small number of banks, in order to safeguard its reputation as a prudential supervisor at the expense of inflation.

However, the Bundesbank, who places more weight on the issue of conflicts of interest than many other central banks, still remains very closely involved with the banking supervisor and even undertakes some banking supervision itself. This could be implied to mean two things. First, there will be conflicts of interest whatever the institutional structure of supervision. Second, the issue of a conflict of interest is not particularly large. On this latter point, Goodhart et al (1998b) do find some cross country correlations between the rate of inflation and the

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89 The Bundesbank co-operates extensively with the Federal Banking Supervisory Office (FBSO). It has the right to be consulted in many cases and sometimes the FBSO must reach agreement with the Bundesbank if its decision will affect monetary policy. The Bundesbank is also extensively involved in ongoing supervision (Courtis 1999).
combination of monetary and supervisory functions, but the authors discount these results as being a function of other factors, such as central bank independence. Consistent with this, the issue of conflicts of interest does not seemed to have played a major role in the decisions of either the UK or Australia to remove banking supervision from the central bank.

In fact, it is hard to think of an example in practice, especially in a developed country, where the monetary policy objective has been compromised to benefit a fragile banking system. More likely is that monetary policy is loosened in the face of benign inflationary pressures, which includes a weak banking system. Consistent with this, comments from officials at the US Federal Reserve suggest a strong conviction that banking supervision and monetary policy work as a successful complement to each other, not as a detriment to each other.

For example, Peek et al (1999) show that in the US, confidential banking supervision data could be used to improve forecasts of both unemployment and inflation. Furthermore, it is shown that when Governors and Federal Reserve Bank Presidents apply their judgement in making decisions on interest rates, they do make use of the content of this confidential information. Such information on the banking sector will be important, for example, when the central bank suspects that monetary policy should be loosened to avoid a potential credit crunch, but needs timely, detailed information to make an appropriate assessment of policy.

Even if ‘conflict of interest’ arguments are not compelling, there is the remaining issue of whether a central bank having responsibility for both monetary policy and banking supervision will create distractions, such that both roles do not receive the attention they deserve.

On one hand, it may be the case that, for the majority of time, the attention of the Governor and senior central bank officials is predominantly focused on monetary policy. One reason for this could be the fact that monetary policy is something that has to be under regular – or even continuous – review as information on the economy emerges, which makes monetary policy more topical. Furthermore, interest rates are always a matter of public interest given their impact on the borrowing costs of both households and small businesses. By contrast, financial stability may become topical much less frequently, especially if banking crises are relatively rare. As a result, this may have the implication that prudential banking supervision will only be managed ‘part-time’ by the Governor and senior central bank officials when banking supervision is the responsibility of the central bank.
Conversely, at times, banking supervision may act as a distraction from monetary policy. There are two reasons why this could especially be the case.

First, in an area such as financial supervision, where measures of performance are hard to assess, it may be difficult for the head of the supervisory agency to delegate responsibility. As a result, within a central bank it will be the Governor that will be faced directly with the blame if something goes wrong, and this means they will want to be integrally involved in all decision making, especially during a time of crisis.

Second, for a central bank Governor responsible for prudential supervision and monetary policy, the incentive structure during a period of banking fragility may be skewed toward concentrating efforts on banking supervision. For example, if the central bank fails to achieve the inflation goal there may be some set procedure, such as an open letter to the government, to explain the monetary policy failing. By contrast, if there is a banking crisis and the central bank is responsible for banking supervision the Governor will most likely go through a public enquiry and much greater public dissatisfaction, with associated political pressures. Such incentives tend to suggest focus will be taken away from monetary policy at some stages.

Finally, removing responsibility for banking supervision from the central bank will have the benefit of reducing the threat that a banking crisis will damage the central bank’s reputation, and hence the credibility of monetary policy.

On balance the topic of whether removing prudential supervision from the central bank acts as a cost or a benefit for monetary policy remains controversial. The benefit of reducing conflicts of interest between monetary policy and prudential supervision, and the ability to focus more purely on monetary policy issues, must be weighed up against the fact that at times banking supervision information complements monetary policy, helping to achieve ‘good’ macroeconomic outcomes.

6. **Country specific factors**

Given that economies and financial sectors are not all alike, the size of the costs and benefits outlined in the previous section will differ from country to country, and hence one institutional structure is not likely to equally suit every country. In fact, evidenced by the number of offsetting
costs and benefits and the variety of regulatory structures in place, Goodhart et al (1998a) concludes that “there is no universal ideal model”.

Despite this, there are a number of country specific economic factors that may tend to make one institutional structure more appropriate. This section looks more specifically at five of those factors. The level of economic development and the extent of activity by financial conglomerates seem to be the most important economic considerations. However, other factors such as the objective of supervision, the type of central bank and the size of the financial sector may also have an influence at the margin. Finally, political considerations are discussed, given their importance in practice.

6.1 The level of economic development

Goodhart et al (1998a) argues that developing countries are most in need of banking supervision given several issues that make them particularly prone to financial instability. Poor legal systems, a lack of accounting standards and practices, and a shortage of financial instruments to hedge financial risks may be just a few factors relevant to developing countries. More generally, where financial market liberalisation has happened only recently there may also be a lack of experience in making financial decisions on commercial grounds. Demirguc-Kunt and Detragiache (1999) show this to further increase the probability of financial instability. Given these features, a high degree of regulation and supervision may be justified.

However, to attain even a sufficient level of supervision\(^9\), this role may have to be the responsibility of the central bank. For example, Lastra (1996) argues that the scarcity of economists and financial analysts in most developing countries could justify having the supervisory agency under the umbrella of the central bank. The central bank is often the best, if not only, policy research group in the country. With this the case there seems little room for a separate financial supervisor to function effectively.

The need for independence from political interference may also tend to suggest that banking supervision will be more effective within the central bank. For example, in supervising the banking system there is a possibility the supervisor may be forced to make decisions that will affect the general economy, cause the closing of banks or businesses, inflict

\(^9\)This may involve aiming to reach the ‘core principles’ set down by the Basle Committee on Banking Supervision. For example in September 1997 the Basle Committee on Banking Supervision established a set of 25 basic principles which it believed must be in place for a supervisory system to be effective (BIS 1997).
losses on depositors, adversely affect the government’s budget, or adversely affect the personal wealth of members of government. Tuya and Zamalloa (1994) argue that given these possible impacts there is a temptation for politicians to want to maintain some influence over the decisions of the supervisors so as to meet some short-term political goals, such as re-election. However, effective banking supervision requires independence from such political agendas.

In a number of developing countries it may be difficult for a banking supervisor outside the central bank to gain the independence from political forces needed to be effective. For example, the central bank may be long-established and have acquired some authority and independence as a result. By contrast, a newly established supervisor starting from scratch is likely to be much weaker. As a result, for the most effective banking supervision it may be preferable to take advantage of the central bank’s independence and reputation, and retain banking supervision beyond the reach of politicians. As concluded by Tuya and Zamalloa (1994),

“For economies in transition, where institutions and legal systems are in the process of development, human capital is scarce, and coordination between institutions is often difficult, banking supervision should be entrusted to the central bank.”

Consistent with this conclusion, Table 3 shows that in a survey of financial supervision in 123 countries, developing countries are much more likely to entrust responsibility for banking supervision with the central bank.

**Table 3. The location of banking supervision** (percentage)

<table>
<thead>
<tr>
<th></th>
<th>CENTRAL BANK</th>
<th>OUTSIDE THE CENTRAL BANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial countries</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Developing countries</td>
<td>78</td>
<td>22</td>
</tr>
</tbody>
</table>

Source: Central Banking Publications (1999).

Note: The definition of an industrial country is taken from IMF International Financial Statistics. The table shows what institutions have primary responsibility. Central banks may still be significantly involved in prudential supervision issues without having primary responsibility.

6.2 The extent of activity by financial conglomerates

The extent of activity by financial conglomerates was highlighted as one of the key factors supporting the case for a single financial supervisor. Having a number of financial conglomerates making up large proportion
of the financial system was linked to the possibility of a single supervisor improving aspects of the effectiveness of supervision, lowering costs of performing supervision and improving efficiency. However, the extent to which financial conglomerates make up the financial system will vary between countries, and hence impact on how applicable this factor is in practice.

At the extreme end of the spectrum Goodhart et al (1998a) highlights that commercial banks in developing countries and transitional economies are sometimes virtually the only financial institutions. As a result, the case for setting up a single supervisor becomes much weaker for such countries. The degree of activity by financial conglomerates may even differ between developed countries. For example, the initial purpose of the Glass-Steagall Act in the United States was to hinder the emergence of financial conglomerates, given such activity was thought to have been one of the causes of the 1929 stock market crash.

Finally, even if banks, insurance companies and securities firms are allowed to merge, the resulting financial institutions could still be predominantly involved in just one of these activities. And if the conglomerate is organised under a holding company type structure, there may be ‘firewalls’ between its different activities that allows it to be supervised on a functional basis more easily than in the absence of firewalls. Both of these factors should also be taken into account when considering the need for a consolidated supervisor.

6.3 The objective of supervision

Section 2 of this paper touched briefly on the rationale for financial supervision. Different countries will put different amounts of weight on these objectives, and this could also influence the choice of appropriate financial supervisor.

Take the case that the rationale for supervision is more focused on the maintenance of system-wide stability, as opposed to consumer protection, and supervision is largely confined to the largest banks. In this case there may be more justification to place responsibility for prudential supervision with the central bank, given this role complements its other roles, including its wider responsibilities for promoting financial stability and the efficiency of the financial system as a whole.

By contrast, take the case that the objective of the financial supervision is consumer protection, and there is perhaps a depositor protection scheme. This might be a factor that suggests there is more justification to place
responsibility for prudential supervision with some authority separate from the central bank, whose core focus is consumer protection.

6.4 The type of central bank

The question of whether a central bank should have responsibility for banking supervision will, to a degree, also depend on its other responsibilities. For example, one of the possible pitfalls of having banking supervision within the central bank is that it may harm monetary policy by creating conflicts of interest, causing risks of reputational damage, or simply distracting attention from monetary policy. However, if the central bank does not control its country’s monetary policy, these factors no longer become such an issue.

The national central banks that encompass the jurisdiction of the ECB provide a good example of this. With the introduction of the euro, formulation of euro-wide monetary policy was assumed by the ECB. With this the case, issues of conflict are resolved. Furthermore, given their loss of control over monetary policy Goodhart et al (1998a) argues that national central banks in the euro area that currently have responsibility for banking supervision will guard that role strongly, so as to retain a role in public policy. Going one step further, given their significant resources and expertise, but recent loss of other functions, there may now be an argument to locate financial supervision within these national central banks.

6.5 The size of the financial sector

Finally, the size of the financial sector may also play a part in the appropriate institutional structure. If the size of the financial sector and separate supervisory agencies are small, Llewellyn (1999) argues that in theory there are likely to be economies of scale in having just one supervisor. Furthermore, Briault (1999) shows that, in practice, the FSA has exploited economies of scale by reducing the costs of performing supervision in the UK, suggesting that economies of scale will still be evident when the financial sector is relatively large.

Although it is likely that merging supervisors into larger and larger supervisory agencies will reduce some of the operating costs of

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91 If one member country in the euro-area was experiencing difficulties in the banking sector, liquidity could be extended in this country and the decision made by the ECB to offset the affect on euro-wide liquidity. As a result, the credibility of euro-wide monetary policy in meeting euro-wide inflation would not be affected.

92 Countering this could be an increasing need for a pan-European banking supervisor if cross border banking activity in Europe increases.
supervision, such as support staff and other inputs, it is conceivable that once supervisory agencies become very large there may be some adverse consequences. As an illustration, if the five largest financial market supervisors in the US merged\textsuperscript{93}, the combined budget and staff in 1999 would be eight times that of the FSA in the UK. Although there may be some operational cost savings in such a merger, merging into a supervisory agency of this size may also introduce a risk that the new supervisor becomes excessively bureaucratic\textsuperscript{94}, inefficient and fixed on consumer protection, increasing the indirect costs of supervision.

### 6.6 Political considerations

Given the degree of uncertainty that surrounds the economic costs and benefits of alternative regimes, in reality political factors play a large role in the choice of supervisory structure. As a result, any discussion on this topic would not be complete without some comments on political considerations.

Often political considerations will depend on the recent history of the country in question. For example, Goodhart et al (1998b) argues that if there have been recent problems in the banking industry, for whatever reason, there may be a temptation for the government to make changes to supervisory responsibilities. By doing this they are seen by the public to be addressing the problem, regardless of whether the reforms address any weakness there was in the old regime, and regardless of whether the old regime contributed to the original problems.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PERIOD</th>
<th>COST AS A PERCENT OF GDP*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (savings and loans)</td>
<td>1984-1991</td>
<td>3.2</td>
</tr>
<tr>
<td>Scandinavia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>1991-1993</td>
<td>8.0</td>
</tr>
<tr>
<td>Norway</td>
<td>1987-1989</td>
<td>4.0</td>
</tr>
</tbody>
</table>

\textsuperscript{93} The Federal Reserve (banking supervision and regulation only), the Securities and Exchange Commission, the Office of the Comptroller of the Currency, NASD Regulation and the Office of Thrift Supervision.

\textsuperscript{94} Increased bureaucracy would especially be the case if it were more difficult to delegate responsibility and accountability in an area such as prudential supervision, where measures of supervisory performance are difficult to assess.
<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>1991</td>
<td>6.4</td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>1997-1998</td>
<td>24.5</td>
</tr>
<tr>
<td>Japan</td>
<td>1990-1999</td>
<td>10 (estimate)</td>
</tr>
</tbody>
</table>

Source: Crockett (1997) and MacFarlane (1999)
* Costs are measured as the cost to resolve the crisis

Table 5 above illustrates the size of recent financial crises in the US, Scandinavia and Asia. All of these crises were followed by some reform of financial supervision. Even the UK and Australia experienced some problems in their banking industries prior to the adoption of a single prudential supervisor, although in these cases the problems were not system-wide and had no significant impact on the economy as a whole.\(^95\)

Conversely, if the banking industry is considered by the public to be running smoothly there may be a temptation to leave responsibility for supervision unchanged, even if it is not as effective or efficient as possible. The public may be averse to the government ‘tinkering’ with the institutional structure. That is, there may be a perception that ‘if it ain’t broke, don’t fix it’, especially as the changes will commonly involve short-term transitional costs.

Another form of inertia could be the political process. In a number of countries if the appropriate supervisory structure were to be designed from scratch, it would undoubtedly be different from the current structure. However, political constraints may make reforms unrealistic. For example, the current structure of financial supervision in the US is large and extremely complicated, and it could be argued that these institutions have become part of the political landscape, causing any significant reform to be drawn out and difficult. For example, legislation to reform US financial supervision has been under consideration for a number of years. Similarly, even when changes are made relatively quickly in practice, as in the UK, the legal details of such reforms will take much longer to be accepted and finalised.

The scale of funding necessary in many financial crises (see Table 5, for example) can at times be way beyond the sums that the central bank or the private sector can, or is willing, to provide from its own resources.\(^96\)

\(^95\) In Australia a number of large banks owned by State governments experienced severe losses in the early 1990s, while in the UK there was the closure of BCCI in July 1991 and the failure of Barings in 1995.

\(^96\) The LTCM bailout in the US in 1998 may seem to be a recent counter-example of private sector involvement in bail-outs of financial institutions. However, in that situation the commercial banks that bailed out LTCM did so in the interests of the value of their own positions in financial markets and hence their own solvency.
As a result central banks might, from time to time, have to depend on the ‘deeper pockets’ of the Finance Ministry for additional funds to act as the lender-of-last-resort. With this the case, Goodhart et al (1998b) contend that, when banks are privately owned, governments may have the incentive to remove banking supervision from the central bank and place it more within reach of the government. By doing this, the ultimate responsibility for supervision lies more directly with who pays if things go wrong\textsuperscript{97}.

The extent of power granted to a financial supervisor may also be a political consideration. For example, in the UK some commentators have gone as far as to claim that the FSA will be able to act as the judge, jury and executioner on all matters of financial regulation and supervision. In fact, Llewellyn (1999) highlights that given its coverage, scope, and discretion, some commentators have described it as the most powerful supervisor in the world. Some governments, however, may consider such concentration of power undesirable.

The issue of power and the choice of financial supervisor may also be linked to central bank independence. In the 1990s there has been a marked trend of central banks being granted independence to formulate and implement monetary policy\textsuperscript{98}. As central banks have been able to set monetary policy more independently of government it has given them more power and influence over the economy. It could be argued that as policy makers have seen it necessary to merge financial supervisors, they have deemed it unwise to make this supervisor part of the central bank, as it would give the central bank even more power – too much power. Consistent with this, Goodhart et al (1998a) conclude that the BoE gaining monetary policy independence in 1997 and the announcement just two weeks later that it would lose responsibility for banking supervision was no coincidence. More generally, the recent examples of central banks losing responsibility for banking supervision may be an integral part of the trend towards more independent central banks.

\textsuperscript{97} It is true that when the central bank is publicly owned losses absorbed by the central bank in the course of rescues will ultimately lower the wealth of taxpayers. However, Goodhart et al (1998b) show that the accounting procedures leading to a change in the central bank’s own capital are perceived to be quite different from a direct transfer of taxpayers money.

\textsuperscript{98} For example, in a survey of seventy-seven central banks Fry et al (1999) show that two-thirds were granted independence over monetary policy with little or no qualification. Monetary policy independence in this survey was measured as an indexed of: how the central bank described itself; target independence; instrument independence; central bank financing of the government deficit; the extent to which statutory/legal objectives focused on price stability; and, the term of office of the Governor.
7. Conclusion

The shift by a number of countries towards having a single prudential supervisor located outside the central bank has made the institutional structure of financial supervision an issue of debate. This paper presents a framework to reflect on the costs and benefits of the choice of the prudential supervisor. Evidenced by the number of offsetting costs and benefits it is concluded that there is no universal ideal institutional structure of financial supervision.

However, it is suggested there are a number of factors that may make a country more suited, or more likely, to adopt the model of a single financial supervisor outside the central bank. Those factors identified include:

• a high level of economic development;
• financial conglomerates making up a large part of the financial system;
• a financial sector that is not so big that there would be diseconomies of scale from merging supervisors;
• a recent banking crisis when supervision was the responsibility of the central bank; and,
• an independent central bank in control of its own monetary policy.

The obvious question becomes; how do the countries – Australia, Canada, Denmark, Iceland, Japan, Korea, Norway, Sweden and the UK – with a single prudential financial supervisor outside the central bank reconcile with this theory?

Unsurprisingly, this set of countries does not match each of the criteria perfectly, as some factors will weigh more heavily than others will in a country’s decision. However, these countries do tend to broadly fit the criteria. Most are developed countries with advanced financial systems that include financial conglomerates. Most also have experienced financial difficulties among their banks before the change in supervisory structure. Furthermore, the majority have relatively independent central banks responsible for monetary policy, with the UK and Australia obvious examples of countries whose central bank independence played a part in the single supervisor being placed outside the central bank. And finally, the UK has shown that economies of scale can be evident from merging supervisors, even with such a large financial system.

Given the recent trend toward single prudential supervisors, the institutional structure of financial supervision is likely to continue to be a topic of debate. The conclusion to be taken from this paper is that the
particular costs and benefits of such reforms needed to be assessed carefully for the specific country in question.

Appendix 1. A single prudential financial supervisor

Two potential weaknesses of having a single financial supervisor outside the central bank became apparent from the cost-benefit analysis discussed in section 5.

- There may be a significant overlap between the role of the central bank and the prudential supervisor, and as a result this may negate some or all of the reduced costs of performing supervision expected from merging supervisors.
- Important synergies between central banking and banking supervision may be lost, resulting in less effective supervision and crisis management.

This Appendix looks into how these weaknesses can be addressed. More specifically, the approaches of the UK and Australia are compared and contrasted.

In an attempt to minimise the potential pitfalls highlighted above, both the UK and Australia have agreed on official Memorandums of Understanding (MOUs) to formalise the relationships between the relevant public policy institutions. In the case of Australia the RBA and APRA signed the MOU, while in the UK the BoE, the FSA and the Treasury signed the MOU. These MOUs do differ slightly but in general their contents attempt to:
- establish areas of responsibility and accountability;
- allocate representation in relevant international committees;
- remove any obstacles to sharing relevant information;
- set up co-ordination committees and cross board membership; and,
- establish protocol for dealing with threats to financial stability.

In general these MOUs can be separated into issues of the division of labour, information flows and crisis management protocol. The three issues are addressed in turn below.
The division of labour

Given their role in the payments system, ability to provide timely lender-of-last-resort facilities and information gathered in implementing monetary policy, central banks, along with the government, retain a key public policy role in financial stability. Reflecting this, both the BoE and the RBA have retained responsibility for ‘financial system stability’. However, entrusting the central bank with responsibility for financial stability places one of the main advantages of a single supervisor at risk. As noted in the Wallis Report, “(a) degree of duplication is evident overseas where central banks do not conduct bank regulation. The Inquiry accepts some duplication is likely…”

Overlap between central banks and supervisors seems to come mostly out of a central banks’ need to monitor the financial system, which involves some focus on banks that are deemed important for the stability of the financial system as a whole. For example, the special nature of some financial institutions in the US was highlighted by the Federal Reserve, who recently categorised around thirty US financial institutions as ‘Large Complex Banking Organisations’ (LCBOs). These LCBOs are considered important enough for the stability of the financial system to have teams of specialist supervisors in the Federal Reserve analysing them, giving their risk profile, risk control and strategies special attention (Meyer 1999a). Similarly, in a recent review of financial stability the BoE (1999) acknowledged that “(t)he most important part of the UK financial sector from the point of view of financial stability remains the banking industry. That is where the greatest danger of contagion arises in the event of solvency or liquidity problems.”

Given this risk of duplication, the goal of the policy maker should be to allocate the division of labour between the central bank and the supervisor such that there is not an excessive overlap in roles, while consideration is taken not to jeopardise the effectiveness of supervision. The UK and Australia provide a case study of how this question can be approached.

The differing approaches of the BoE and the RBA to the question of the division of labour can be illustrated in how the operating costs of their financial stability wings have changed since responsibility for prudential banking supervision was removed. These are shown in Table 699.

99 Given different functions of central banks (such as researching emerging market economies or the availability of finance for small firms) could plausibly be placed in the monetary stability or the...
Table 6. Operating costs of financial stability sections
(as a percentage of total)

<table>
<thead>
<tr>
<th></th>
<th>RESERVE BANK OF AUSTRALIA</th>
<th>BANK OF ENGLAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>1999</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: BoE Annual Report and RBA Report and Financial Statements

The RBA has made clear the intention not to duplicate the work of APRA (MacFarlane 1999). As a result, the RBA does not receive balance sheet information from individual banks on an ongoing basis, although it does receive aggregated data on the banking industry. Rather, the RBA looks to contribute to assessing and understanding financial stability issues by combining an analysis of aggregate prudential data with the insights gained through its operations within financial markets and the payments system, as well as insights gained through its role monitoring and researching the macroeconomy.

However, as opposed to just around 50 banks in Australia, in the UK there are around 600 banks, including a number of a large foreign banks and banks with significant exposures to foreign countries. As a result, the UK financial system may be deemed more important and complex and therefore more deserving of a higher intensity of systemic supervision, especially in relation to the health of the larger financial institutions and the framework of financial regulation they must adhere to. Given these differences, unlike the RBA, the BoE continues to analyse the balance sheets of some individual institutions. However, this is only done for institutions that are considered to be important for the stability of the financial system, and the emphasis in any analysis is restricted to system-wide vulnerabilities, rather than conventional prudential analysis covered by the FSA.

London’s larger role in global financial stability issues is also reflected in the UK’s role on the Basle Committee of Banking Supervision, which both the BoE and the FSA attend. Given the unique perspective that a central bank can provide on financial stability, all of the central banks of the member countries attend the committee. Furthermore, with central banks tending to be more research orientated than prudential supervisors, in practice the BoE has taken the lead on a large amount of the shared financial stability sections of the central bank, any strict comparisons of operating costs need to be interpreted with caution.
research work with the FSA since it was established, especially in regard to the Basle Capital Accord proposals for changing banks’ risk weights.

In summary, the UK and Australia have taken slightly different approaches to the division of labour between the central bank and the prudential supervisor. However, the higher relative amount of resources put towards financial stability at the BoE, when compared to the RBA, can be largely put down to differences in the size and importance of the respective financial sectors.

**Information flows**

When banking supervision is passed on from the central bank to a single supervisor some valuable synergies between central banking and banking supervision will be lost. Ensuring reliable information flows should help make up for some of these losses, and reduce the chance of a financial crisis occurring and ensure any crisis is managed as successfully as possible.

In theory information flows between the central bank and the supervisor are mutually beneficial. However, in practice, information flows may depend on the health of the working relationships between the central bankers and supervisors. As a result, the IMF (1999) concluded in relation to the establishment of the FSA that, “while collaboration between the FSA and the BoE on matters of common interest – in particular the bank’s lender-of-last-resort function – seemed adequate at present, the issue would need to be kept under careful review, with an eye to avoiding possible co-ordination problems”.

The importance of information flows has been emphasised in the MOUs of both the UK and Australia. Both MOUs contains measures to ensure information flows as smoothly as possible. In them, central banks and supervisors are, subject to legal provisions and with due regard to the confidentiality of the information, obliged to share relevant information with each other. Furthermore, in Australia the MOU led to the establishment of a Standing Committee between senior management of the RBA and APRA. While in the UK the MOU saw the establishment of a Standing Committee of representatives from the BoE, the FSA and the Treasury to discuss relevant areas of common interest and foster a culture of co-operation.

In conclusion, there is no guarantee that the MOUs of the UK and Australia will completely deal with a loss of synergies. However, such agreements are undoubtedly a step in the right direction.
Crisis management protocol

The final way in which moving to a single supervisor outside the central bank has the potential to have a detrimental affect on financial stability is through less effective crisis management. One way in which the MOUs in the UK and Australia differ is in their approach to protocol surrounding threats to financial stability, and therefore the use of lender-of-last-resort.

In the case of Australia, the RBA is responsible for determining whether, and how, it might provide emergency liquidity support to the financial system. However, given their abilities to identify threats to stability, both the RBA and APRA are obliged as a matter of urgency to inform each other as soon as they consider there to be a threat. Furthermore, APRA’s input into crisis management is likely to be significant, as the RBA will rely to a large extent on APRA’s assessment of the solvency of the institution calling on lender-of-last-resort support\textsuperscript{100}. Ultimately, and according to the MOU, the RBA remains the final decision-maker when it comes to using its own balance sheet as a lender-of-last-resort\textsuperscript{101}.

In the case of the UK, the protocol for responding to threats to financial stability differs. In a similar way to Australia, the BoE and FSA are committed as a matter of urgency to inform each other as soon as they consider there to be a threat to financial stability. And again, given that the FSA is the sole prudential supervisor, an assessment of the solvency will largely depend on the FSA. However, procedures from there take a turn from the approach of Australia.

Rather than the BoE automatically taking the lead in managing a threat to stability, responsibilities are shared with the FSA, and the Treasury also plays a role in crisis management. Crisis management protocol is covered in paragraphs 12 and 13 of the MOU, shown below.

“12. Each institution (the ‘lead institutions’) would take the lead on all problems arising in its area of responsibility as defined in paragraphs 2 and 3. The lead institution would manage the situation and co-ordinate the authorities’ response (including support operations). The form of the response would depend on the nature of the event and would be determined at the time.”

“13. In all cases the BoE and FSA would need to work closely and they would immediately inform the Treasury, in order to give the

\textsuperscript{100} See Freixas et al (1999) for a literature review on the theory of lender-of-last-resort.

\textsuperscript{101} In a similar way that APRA has final responsibility for the issuance of directions constraining an individual financial institution’s activities.
Chancellor of the Exchequer the option of refusing support action. Thereafter they would keep it informed about the developing situation, as far as circumstances allowed”.

It is not clear how such a system of shared responsibility would work in practice and whether it is superior or inferior to one where ultimate responsibility lies with the central bank. However, it is clear that in either system the central bank will play an important role, as it will have a deeper understanding of the relevant financial markets than either the prudential supervisor or the government. It will thus provide key information on the likely effect any decision will have on the functioning of financial markets, as well as spill-over effects on the wider economy. The speed at which the central bank could act as a lender-of-last-resort, and being the ultimate supplier of reserve money, also gives it the advantage of being able to act promptly when required.

References


List of Attendees at the Conference on
Friday, 10 December 1999
Jointly hosted by CCBS and the Money, Macro and Finance Group

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