Cross-Border Issues in European Financial Supervision*

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and

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1. Introduction

Over the last three decades, there is a clear trend towards globalised finance. Large financial groups are run on a global basis spreading their business – with almost no exception – over the three main regions of the developed world (the Americas, Europe and Asia). In response, regulations are also increasingly based on a global (Basle, IOSCO, IAIS) or regional (EU) footing to ensure their effectiveness as well as an international level playing field. However, supervisory authorities, who enforce these regulations, are still nationally rooted with some elements of international or regional coordination. The national base of supervisors is related to political sovereignty (Herring and Litan, 1994). In a more practical sense, it also related to the issue of jurisdiction. One needs a jurisdiction for enforcement of regulations, liquidation and winding-up procedures and taxation.

Two recent examples illustrate the challenges of cross-border cooperation for national supervisors. The first is the cross-border implementation of the new Basle Accord of 2004. Banks often run their internal risk management models on an integrated/centralised basis. Basle has therefore always put a strong emphasis on the consolidated supervisor in the home country. Nevertheless, Basle also envisages a role for host country supervisors, in particular where banks operate in subsidiary form, for the approval of banks’ internal models (Basle Committee on Banking Supervision, 2003 and 2004). This can lead to duplication, and in the case of uncoordinated approval, diverging requirements for banks. There is thus a trade-off between ensuring effective supervision based on home-host cooperation and minimising the burden for banks. The second example is the recent reinforcement of local control by the New Zealand authorities. To maintain direct control over systemically important operations from overseas banks in their jurisdiction, the authorities will require these overseas banks to establish locally incorporated subsidiaries instead of branches (Reserve Bank of New Zealand, 2004). This will partly reverse the process of international financial integration.

The focus of this paper is on cross-border issues in the European Union (EU). As a European jurisdiction is (or can be made) available, policy-makers have the choice to organise financial supervision on a national or a European basis. The basic argument in favour of moving to a European structure is that it might be difficult to achieve simultaneously a single financial market and stability in the financial system, while preserving a high degree of nationally based supervision with only decentralised efforts at harmonisation (Thygesen, 2003). This is an application of the classical trilemma in macro-economic policy. Policy-makers are confronted with three desirable, yet contradictory, objectives: fixed exchange rates, capital mobility and independent monetary policy. Only two out of the three objectives are mutually consistent, leaving policy-makers with the decision which one they wish to give up: the ‘trilemma’ (Rose, 1996). Figure 1 illustrates the three incompatible objectives in our case: 1. a stable financial system; 2. an integrated financial market; and 3. independent national financial supervision. An argument against moving to a European solution for financial supervision at the present time could be that the degree of integration in financial markets does not yet justify such a move.
The paper is organised as follows. Starting with the first two elements of the trilemma, we review in section 2 the potential for cross-border contagion given the level of financial integration within the EU. What are the channels for contagion? What is the intensity of cross-border externalities arising from the failure of financial institutions? In section 3, we examine how financial institutions organise themselves. The country model in which financial institutions run their business according to geographical lines is rapidly fading. Instead, financial firms run their activities and in particular key management functions (including risk management) on an integrated and centralised basis. Turning to the third element of the trilemma, we discuss in section 4 the challenges posed by these trends for the predominantly national based supervisory framework. What are the policy options for the structure of financial supervision? This raises the question of the appropriate division of responsibilities between home and host authorities and their mandate (national or European). To stay close to the operations of financial institutions, we argue that the supervisor of the home country should act as consolidated supervisor, but with a European mandate to incorporate cross-border effects. Taking an integrated approach of financial supervision and stability (including crisis management), supervisory structures should involve supervisors, central banks as well as ministries of finance. In the final section, we discuss the policy implications and draw conclusions.

2. Cross-border contagion
This section investigates how financial problems occurring in one member state can affect the health of the financial system in other member states. First, we discuss different channels through which shocks can be transmitted from one institution or market to others and illustrate the importance of the channels. Secondly, we present some empirical evidence on the potential cross-border externalities posed by financial institutions that come into existence as a result of integration of EU financial markets.
2.1 Contagion channels

According to De Bandt and Hartmann (2000), the mechanism through which shocks propagate from one financial institution or market to the other (contagion) is the very core of the systemic risk concept. They distinguish two main channels in banking markets through which contagion can spread problems from one institution or market to others:

- the real or exposure channel which refers to ‘domino effects’ resulting from real exposures in the interbank markets and/or in payment systems, and
- the information channel which relates to the contagious withdrawals (bank run) when depositors are imperfectly informed about the type of shocks hitting banks and about their physical exposure to each other (asymmetric information).

Interbank market

The first channel for contagion is the interbank market. This is the risk that a failure of one or a number of financial institutions will cause a severe shock to the financial system due to high interbank exposures. As cross-border interbank exposures increase, problems in bank can not only cause internal problems, but also have the potential to jump over to banks in other member states.

With the advance to EMU, the national interbank markets in local currencies have shifted to an integrated and deep euro interbank market with multiple counterparties. The impact on financial stability at the European level is not clear cut. On the one hand, there is more scope for diversification as the number of counterparties is larger than in the previously national markets. On the other hand, there is more for cross-border contagion as the level of cross-border activity has increased. Table 1 shows that the importance of cross-border activities in the interbank market differs considerably across the euro area countries. According to Cabral, Dierick and Vesala (2002), this can be explained by the size of the local money market. In larger countries more local counterparties are available, which results in lower cross-border interbank activities. Interbank business is thus strongly oriented towards the domestic market in countries like France, Germany, Italy and Spain. In smaller countries like the Benelux countries, Finland, Ireland and Portugal cross-border activities (with euro area as well as non-euro area countries) account for at least 50% of interbank assets. It should be noted that the figures in table 1 can be somewhat misleading as Cabral, Dierick and Vesala focus on euro area countries rather than EU countries. For example, in 2002 the cross-border penetration from the euro-area is rather low for Finland and the Netherlands, while domestic business is well below 50 per cent. This is due to the fact that EU countries like Sweden (an important trading partner for Finland) and the United Kingdom are not included in the euro area figures.
### Table 1. Cross-border penetration of banks: interbank assets in the euro area (in %)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>56</td>
<td>18</td>
<td>63</td>
<td>16</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Belgium</td>
<td>30</td>
<td>27</td>
<td>31</td>
<td>32</td>
<td>26</td>
<td>40</td>
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<tr>
<td>Finland</td>
<td>36</td>
<td>11</td>
<td>35</td>
<td>19</td>
<td>38</td>
<td>15</td>
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<tr>
<td>France</td>
<td>66</td>
<td>8</td>
<td>69</td>
<td>9</td>
<td>70</td>
<td>12</td>
</tr>
<tr>
<td>Germany</td>
<td>73</td>
<td>9</td>
<td>72</td>
<td>10</td>
<td>74</td>
<td>11</td>
</tr>
<tr>
<td>Greece</td>
<td>n.a.</td>
<td>n.a.</td>
<td>70</td>
<td>9</td>
<td>69</td>
<td>11</td>
</tr>
<tr>
<td>Ireland</td>
<td>41</td>
<td>17</td>
<td>46</td>
<td>23</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>Italy</td>
<td>57</td>
<td>16</td>
<td>53</td>
<td>24</td>
<td>59</td>
<td>22</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>20</td>
<td>53</td>
<td>22</td>
<td>55</td>
<td>25</td>
<td>52</td>
</tr>
<tr>
<td>Netherlands</td>
<td>39</td>
<td>23</td>
<td>37</td>
<td>24</td>
<td>41</td>
<td>21</td>
</tr>
<tr>
<td>Portugal</td>
<td>43</td>
<td>30</td>
<td>43</td>
<td>29</td>
<td>52</td>
<td>23</td>
</tr>
<tr>
<td>Spain</td>
<td>71</td>
<td>13</td>
<td>71</td>
<td>15</td>
<td>72</td>
<td>17</td>
</tr>
<tr>
<td>Euro area</td>
<td>60</td>
<td>15</td>
<td>61</td>
<td>17</td>
<td>62</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Cabral, Dierick and Vesala (2002).

Notes: Interbank assets from the “Home” country (denoted by \( h \)) and “Rest of Europe” (denoted by \( e \)) are measured as a percentage of the total interbank assets of a country’s banking system. ‘Home’ is defined as domestic institutions; ‘Rest of Europe” is defined as branches and subsidiaries from euro area countries exclusive of the home country. Figures for 1997-2001 are measured in the fourth quarter, figures for 2002 are measured in the first quarter. The abbreviation n.a. means ‘not available’.

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**Payment and settlement systems**

Within payment and settlement systems there exists the risk that the failure of one or a number of financial institutions to settle their obligation causes others participants to fail as well. For an extensive overview of the literature on systemic risks in payment and settlement systems we refer to De Bandt and Hartmann (2000).

In the EU, the most significant payment system is the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system, which started its operations in 1999. Currently TARGET is built on the 15 national payment systems of the former EU member states, complemented by the payment mechanism of the ECB (EPM) and an interlinking mechanism that foresees in the actual processing of cross-border payments.\(^1\) TARGET has as its main objectives: (i) to provide a safe and reliable mechanism for the settlement of euro payments on a real-time gross settlement (RTGS) basis, (ii) to increase the efficiency of cross-border payments within the euro area, and perhaps most importantly (iii) to serve the needs of the monetary policy of the ECB. Table 2 shows that the use of TARGET has shown a sharp rise in payment flows since its establishment. Although the majority of payment flows is domestic, there is a sizeable cross-border component of over 30%. TARGET business is mainly related to interbank business (about 95%) and not so much to customer related business (only 5%). In addition to the TARGET system run by the ECB and the NCBs, there is a private EU-wide large value payment system, EURO 1, run by the European Banking Association.

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\(^1\) Central banks of the new member states have the possibility – but not the obligation – to connect to TARGET. Participation in TARGET is only compulsory when they join Economic and Monetary Union.
Table 2 TARGET Payment Flows (EUR Billions)

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>TARGET</td>
<td>239.472</td>
<td>263.291</td>
<td>329.992</td>
<td>395.635</td>
<td>420.749</td>
</tr>
<tr>
<td>overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>change %</td>
<td>10%</td>
<td>25%</td>
<td>20%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic</td>
<td>146.236</td>
<td>153.253</td>
<td>201.390</td>
<td>271.914</td>
<td>283.871</td>
</tr>
<tr>
<td>(69%)</td>
<td>(58%)</td>
<td>(61%)</td>
<td>(69%)</td>
<td>(67%)</td>
<td></td>
</tr>
<tr>
<td>Cross-border</td>
<td>93.236</td>
<td>110.038</td>
<td>128.602</td>
<td>123.721</td>
<td>136.878</td>
</tr>
<tr>
<td>(31%)</td>
<td>(42%)</td>
<td>(39%)</td>
<td>(31%)</td>
<td>(33%)</td>
<td></td>
</tr>
</tbody>
</table>


Furthermore, there has been a recent trend towards consolidation of national security settlement systems within Europe. To give three examples (Bank of England, 2004), the Euroclear Group now comprises the national securities settlement systems in the UK, Ireland, France and the Netherlands, as well as Euroclear Bank, based in Belgium, which settles internationally-traded eurobonds. Similarly, LCH.Clearnet Group – which began operating as a combined entity on 1 January 2004 – clears securities trades on exchanges located in the UK, France, Belgium, the Netherlands and Portugal. Finally on a global basis, the CLS (Continuous Linked Settlement) system operates as a settlement system for foreign exchange transactions in eleven currencies (including the euro), with average settled values of over US$1 trillion per day.

Information channel

The information channel relates to contagious withdrawals when depositors are imperfectly informed about the type of shocks hitting banks (idiosyncratic or systematic) and about their physical exposures to each other (asymmetric information). De Bandt and Hartmann (2000) distinguish three potential causes of systemic events related to asymmetric information and expectations (see also Aharony and Swary, 1983). These are, first, the full revelation of new information about the health of financial institutions to the public; second, the release of a ‘noisy signal’ about the health of financial institutions to the public; and, finally, the occurrence of a signal which co-ordinates the expectations of the public without being actually related to the health of financial institutions. In this respect, the assessment of financial supervisors and central banks of potential threats to the financial system and their view on how to deal with them (for example through a Financial Stability Review) could influence the behaviour of depositors.

2.2 Cross-border externalities

Turning from the channels for contagion to the occurrence of a financial crisis, the literature on financial stability makes a distinction between general liquidity crises and institution-specific crises (Goodhart, 2000; Schoenmaker, 2003). General liquidity crises need to be resolved by the ECB by supplying liquidity to the market, without the specific need to obtain detailed supervisory information.
on individual institutions. As opposed to institution-specific crises, where national central banks need detailed information on the position of the respective institution (especially the availability of sufficient collateral) before granting any emergency liquidity assistance.

In this section, we focus on institution-specific crises. In an earlier paper (Schoenmaker and Oosterloo, 2005), we argue that the level of cross-border business of financial institutions is an appropriate measure for the cross-border impact of the (potential) failure of these institutions ("cross-border externalities"). There are different approaches to measuring the cross-border business of financial institutions. Sullivan (1994) reviews 17 studies estimating the degree of internalisation based on a single item indicator. However, using just a single indicator increases the possibility for errors, as for example the indicator could be more susceptible to external shocks. Depending on the choice of indicators, this might provide a better approximation of the degree of internationalisation, but the choice of indicators may be restricted by data availability rather than by theoretical induction (see Sullivan, 1994; and Slager, 2004).

Schoenmaker and Oosterloo (2005) collect a new data-set on cross-border penetration (as a proxy for cross-border externalities) of large banking groups, based on the Transnationality Index (Slager, 2004) calculated as an unweighted average of (i) foreign assets to total assets, (ii) foreign income to total income, and (iii) foreign employment to total employment. In order to determine whether the cross-border externalities are significant, Schoenmaker and Oosterloo (2005) develop a tool that enables them to make a distinction between the activities in the home market (\( h \)), the rest of Europe (\( e \)) and the rest of the world (\( w \)). Financial institutions (in particular banks) that have the potential to pose significant cross-border externalities in the European context are defined as follows:

1) 50 per cent or more of their business is conducted abroad (\( h \leq 0.5 \)), and
2) 25 per cent or more of their business is conducted in other EU countries (\( e \geq 0.25 \)).

The first criterion makes a distinction between domestic and international banks. Banks that conduct more than half of their business abroad are regarded to be “international”. In the case of \( h < 1 \), there are significant cross-border externalities on a global scale. The second criterion identifies European banks among the international ones. International banks that conduct a quarter or more of their business in the rest of Europe are regarded to be “European”. In the case of \( e > 0 \), a large part of the cross-border externalities are in the rest of Europe.

On the basis of these criteria table 3 divides the 30 largest EU banking groups into three categories: (i) European banks, (ii) international banks and (iii) domestic banks. As these are figures from 2003, recent developments like the takeover of Abbey National by Santander Central Hispano have not been included.
### Table 3. Categories of banking groups (top 30 EU banks in 2003)

<table>
<thead>
<tr>
<th>Category</th>
<th>Banking group</th>
<th>h (in %)</th>
<th>e (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>European</strong></td>
<td>1. Deutsche Bank</td>
<td>25</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>2. Nordea Group</td>
<td>28</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>3. ABN AMRO</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>4. KBC Bank</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>5. Fortis Group</td>
<td>44</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>6. BNP Paribas</td>
<td>47</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>7. Westdeutsche Landesbank</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>8. HypoVereinsbank</td>
<td>48</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>9. Groupe Caisse d’Epargne</td>
<td>50</td>
<td>38</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td>1. HSBC Holdings</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2. ING Group</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>3. Banco Bilbao Vizcaya Argentaria</td>
<td>44</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4. Santander Central Hispano</td>
<td>45</td>
<td>16</td>
</tr>
<tr>
<td><strong>Domestic</strong></td>
<td>1. Dexia</td>
<td>54</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>2. Société Générale</td>
<td>56</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>3. Dresdner Bank</td>
<td>59</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>4. Crédit Agricole Groupe</td>
<td>61</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>5. UniCredit</td>
<td>71</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>6. Bayerische Landesbank</td>
<td>72</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>7. Commerzbank</td>
<td>75</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>8. Rabobank</td>
<td>75</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>9. Crédit Lyonnais</td>
<td>77</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>10. Royal Bank of Scotland</td>
<td>77</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>11. Banca Intesa</td>
<td>78</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>12. Barclays</td>
<td>80</td>
<td>8</td>
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<tr>
<td></td>
<td>13. HBOS</td>
<td>91</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>14. Lloyds TSB Group</td>
<td>94</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15. Abbey National</td>
<td>97</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>17. Groupe Banques Populaires</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Source: Schoenmaker and Oosterloo (2005).

Notes: “Home” is defined as a bank’s business in its home country (denoted by h); “Rest of Europe” is defined as a bank’s business in other European countries (denoted by e); “Rest of the world” is defined as a bank’s business outside Europe (these figures are not shown). The three categories add up to 100 per cent. Banks in each category are ranked according to the share of their international business. The abbreviation “n.a.” means ‘not available’.

It is found that nine banks out of the sample of 30 large EU banking groups are considered as “European” banks that have the potential to pose significant cross-border externalities. Over a longer period, Schoenmaker and Oosterloo (2005) report a statistically significant upward trend of emerging European banking groups (rising from six European banks in 2000 to nine in 2003). Although the criteria to classify banks into European, international and domestic banks are intuitive, they are somewhat arbitrary as well. Therefore, a sensitivity analysis is conducted. To see whether more banks have the potential to pose ‘significant’ cross-border externalities in the European context, the criteria are lowered by 10 per cent and 20 per cent. An “international” bank is then defined as a bank that conducts more than 45 respectively 40 per cent of its business abroad \((h \leq 0.55; h \leq 0.6)\). A “European” bank is an international bank that conducts more than 22.5 respectively 20 per cent of its business in the rest of Europe \((e \geq 22.5; e \geq 0.2)\). In the case of a 10 per cent decrease (moving to the 45/22.5 per cent criteria), two more banks (ING Group and Dexia) would be regarded as “European”. In the case of a 20 per cent decrease (moving further to the 40/20 per cent criteria), two
more banks (Société Générale and Dresdner Bank) would become “European”. Concluding, a substantial relaxation of our criteria (to 40 and 20 per cent) would add four banks to the sample of nine “European” banks. This would suggest that the results are somewhat, albeit not excessively, sensitive to the choice of the criteria.

In our empirical survey, we conclude that cross-border penetration within Europe is substantial and increasing (Schoenmaker and Oosterloo, 2005). These findings are different from a recent study by Berger, Dai, Ongena and Smith (2003), who focus on the global reach of banks’ cash management services. Out of a sample of over 250 banks, they find that only eight banks have a broad coverage in Europe (defined as a presence in at least nine of the 20 European nations in their data-sample). Of these eight banks, five are head-quartered in the EU and three in the US. Berger et al (2003) conclude that the extent of future bank globalisation may be significantly limited as many corporations continue to prefer local or regional banks for at least some of their services (such as cash management). The conclusion that bank globalisation may be limited in the future should be treated with care, as the survey data of their study refer to one year (1996). Our data show that there is a clear upward trend in the Europe-wide coverage of banks.

**Regional versus pan-European banks**

It should be noted that not all of the ‘European’ institutions in table 3 are pan-European. There are some banks that focus on a specific region in the Europe and can be regarded as ‘regional’ European banks. HypoVereinsbank has merged with Bank Austria in Austria and the overriding part of its business is conducted in Germany and Austria. Fortis primarily operates in Belgium and the Netherlands. Similarly, the Nordea Group primarily operates in the Nordic countries. Nordea holds 40 per cent of banking assets in Finland, 25 per cent in Denmark, 20 per cent in Sweden and 15 per cent in Norway. Therefore, Nordea can also be seen as a ‘regional’ European financial institution. With the acquisition of 60% of the Italian bank Banque Sanpaolo, Groupe Caisse d’Epargne also became a regional European banking group.

The other banks can be regarded as ‘pan-European’ banks. ABN AMRO, BNP Paribas and Deutsche Bank have spread their activities throughout Europe. They operate for example cash management services in 19, respectively 12 and 10 European countries (Berger et al, 2003). The KBC Group occupies a leading position in Belgium as well as in its second home market in Central and Eastern Europe. The Westdeutsche Landesbank also operates throughout Europe (including Eastern European countries and Turkey).

**Foreign ownership**

So far, we have looked at the European activities of individual EU banks. But how are banking systems in member states affected by the increasing cross-border activities of financial institutions? As can be seen in table 4, a rather significant fraction of the banking system's assets in most new member states (as well as Luxembourg) is in banks that are foreign owned.
Although the presence of strong foreign participation can add to the stability of the financial system (diversification), it also poses challenges to the respective supervisory authorities. For example, in its Financial System Stability Assessment of the Czech Republic the IMF (2001) states that “the predominant foreign control of the Czech banking system highlights the urgent need for strengthening supervision of foreign banks’ establishments. Most importantly, it will require an efficient system of information sharing and formal Memoranda of Understanding (MoUs) with supervisory counterparts.” With respect to Slovakia the IMF (2002) argues that the predominance of foreign banks “will require the implementation of effective cross-border prudential supervision as well as consolidated supervision and close and effective working relations with foreign supervisors.” Before turning to the important issue of how to supervise foreign establishments in section 4, we first review how financial institutions run these foreign establishments in practice.

### Table 4. Fraction of banking system’s assets in foreign owned banks (2001)

<table>
<thead>
<tr>
<th>Country</th>
<th>%</th>
<th>Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Austria</td>
<td>n.a.</td>
<td>14. Latvia</td>
<td>65</td>
</tr>
<tr>
<td>2. Belgium</td>
<td>n.a.</td>
<td>15. Lithuania</td>
<td>78</td>
</tr>
<tr>
<td>3. Cyprus</td>
<td>13</td>
<td>16. Luxembourg</td>
<td>95</td>
</tr>
<tr>
<td>4. Czech Republic</td>
<td>90</td>
<td>17. Malta</td>
<td>60</td>
</tr>
<tr>
<td>5. Denmark</td>
<td>0</td>
<td>18. Netherlands</td>
<td>2</td>
</tr>
<tr>
<td>7. Finland</td>
<td>6</td>
<td>20. Portugal</td>
<td>18</td>
</tr>
<tr>
<td>8. France</td>
<td>n.a.</td>
<td>21. Slovakia</td>
<td>86</td>
</tr>
<tr>
<td>9. Germany</td>
<td>4</td>
<td>22. Slovenia</td>
<td>21</td>
</tr>
<tr>
<td>12. Ireland</td>
<td>n.a.</td>
<td>25. United Kingdom</td>
<td>46</td>
</tr>
<tr>
<td>13. Italy</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Foreign owned banks are defined as banks that are 50% or more foreign owned. Data refer to year-end 2001 with the exception of Slovenia (year-end 2002). The abbreviation n.a. means ‘not available’.

### 3. How do financial institutions operate?

This section discusses two elements of the corporate structure of financial institutions that greatly affect the scope for control of supervisory authorities. The first element concerns the growing integration and centralisation of key management functions, such as risk management, internal controls, treasury operations (including liquidity management and funding), compliance and auditing. The second element concerns the legal structure of financial institutions and, in particular, the question whether a firm organises its cross-border operations through branches or subsidiaries.

#### 3.1 Integration of risk management functions

One of the most notable advances in risk management is the growing emphasis on developing a firm-wide assessment of risk (Joint Forum, 2003). These integrated approaches to risk management aim to ensure a comprehensive and systematic approach to risk-related decisions throughout the financial firm. Although costly to realise, Flannery (1999) argues that once firms have a centralised risk management unit in place, they should expect to reap economies of scale in risk management. Moreover, the potential capital reductions that can be achieved by applying the advanced approaches...
of the new Basel II framework could encourage banking groups to organise their risk management more centrally. Nevertheless, these centralised systems still rely on local branches and subsidiaries for local market data.

Kuritzkes, Schuermann and Weiner (2003) point out that internationally active financial conglomerates are putting in place centralised risk and capital management units. According to these authors the dominant approach is to adopt a so-called ‘hub and spoke’ organisational model. The spokes being responsible for risk management within business lines, while the hub provides centralised oversight of risk and capital at the group level. Activities at the spoke include the credit function within a bank, or the actuarial function within an insurance subsidiary or group, each which serves as the front-line managers for most trading decision making. Moreover, aggregation across risk factors within a business line also typically takes place in the spokes, often in a finance unit that is responsible for funding and business reporting for the subsidiary. While the hub is dependent on risk reporting from the spokes, in many cases it is also responsible for overseeing the methodology development of an integrated economic capital framework that is then implemented within the spokes. The specific roles of the hub vary, but tend to include assuming responsibility for group-level risk reporting; participating in decisions about group capital structure, funding practices, and target debt rating; liaising with regulators and rating agencies; advising on major risk transfer transactions, such as collateralised loan obligations and securitisations; and in some institutions, actively managing the balance sheet.

On the basis of a survey of 31 financial institutions in 12 jurisdictions, the Joint Forum (2003) observes two important trends:

(i) greater emphasis on the management of risk on an integrated firm-wide basis; and
(ii) related efforts to “aggregate” risk through mathematical risk models.

These integrated risk management systems seek to have in place management policies and procedures that are designed to help ensure an awareness of, and accountability for, the risk taken throughout the financial firm, and also to develop tools needed to address those risks. A key objective of integrated risk management systems is to ensure that the firm does not ignore any material source of risk. The Joint Forum study shows that in order to accomplish this, many firms have increased the share of firms resources devoted to risk management activities and/or created a dedicated risk management function. However, in contrast to Kuritzkes, Schuermann and Weiner (2003), the Joint Forum (2003) finds that the organisational infrastructure of risk management decision-making varies considerably across firms without any single approach becoming dominant.

3.2 Legal structure: branches versus subsidiaries

The second element concerns the legal structure that financial institutions adopt. In particular the question whether a financial institution organises its cross-border operations through branches or subsidiaries. While subsidiaries have a legal status (own corporate charter and balance sheet), branches have no separate legal status but are part of another legal entity (parent company). As more fully discussed in the next section, subsidiaries are separately licensed and supervised within the EU (host country control), while branches are supervised through the parent company (home country
control). In a recent survey, Freshfields Bruckhaus Deringer (2003) examined to what extent legal firewalls (separate legal personality and limited liability of subsidiaries) can help to reduce or prevent contagion risk within a group. They find that legal firewalls can help to protect from direct contagion (credit exposures arising from intra-group transactions or operational risk from sharing of services), but are less effective in limiting indirect contagion (reputation risk and funding risk). This is because indirect contagion arises from perceptions and behaviour of (potential) counterparties and other market participants.\(^2\)

Although organising cross-border activities through branches lessens the number of supervisory authorities that a financial institutions has to deal with (large banking groups like ABN AMRO and Deutsche Bank have to deal with at least 20 different supervisory authorities in the EU) many firms chose to operate through subsidiaries. According to Dermine (2003), the motivation to keep a subsidiary structure can be driven by eight different arguments:

1. protection of the original brand: at the time of a merger financial institutions will like to keep ‘business as usual’ and not to change the brand;
2. management trust: to reassure the local management that key-functions will not be transferred;
3. shareholder approval: to reassure shareholders so as to get their approval for a merger;
4. nationalistic feelings: to reassure member states that that they keep (supervisory control over) their bank;
5. corporate tax: a subsidiary structure is often more flexible from an international corporate tax point of view;
6. deposit insurance: a financial institution would have to contribute extra deposit insurance premia to the home country insurance fund if it transfers a subsidiary into a branch;
7. ring-fencing: protection form risk-shifting and the ability to do a separate listing; and
8. flexibility: the ease with which to sell a business unit.

The first four arguments are of a temporary nature, the following two are due to the incompleteness of EU integration and the last two are permanent features of business. From this analysis, Dermine (2003) concludes that the corporate structure of European banks is very unlikely to meet the single entity with branches textbook case, but will involve a web of branches and subsidiaries.

Since Dermine’s analysis, there has been an interesting development. The European Company Statute (ECS) will be introduced in October 2004. The ECS will give companies operating in more than one member state the option of being established as a single company under community law. This enables firms to operate throughout the EU with one set of rules and a unified management and reporting system instead of operating through subsidiaries and being subject to the different national laws. The main advantages of the ECS are that it facilitates companies to move their business across borders and the potential for significant reductions in administrative and legal costs (“synergies”).

\(^2\) A good example of indirect contagion is the Drexel Burnham Lambert collapse in 1990. While the Drexel Burnham Lambert Group was experiencing difficulties, the London subsidiary was solvent. Nevertheless, the Bank of England had to intervene as facilitator because the counterparties did not want to deal directly with the London subsidiary (Committee on Payment and
In the financial sector, the Nordic banking group Nordea has already indicated that it will adopt the ESC (Schütze, 2004). In practice this means that the entire banking group will convert into one legal body under Swedish law, while most of its activities are performed by foreign branches. As Nordea is a systemic relevant banking group in at least all Nordic countries, this transformation poses a significant challenge to the relevant authorities in these countries. For example, how should these countries design their deposit insurance funds, what about crisis management decisions (e.g. emergency liquidity assistance and potential burden sharing)? These issues are addressed in the next section.

Diverging structures
We described the trend to centralise key management functions that previously belonged with the separate entities of a financial group. Centralisation implies that strategic decision-making is transferred from the functional or sectoral entities of the group to the level of the group as a whole (that is, the holding level). The centralisation of activities (such as asset management) and key management functions results from the drive of financial groups to reap the benefits of synergy. The prospect of co-operation between different entities of a financial group is an important part of the rationale for the group. During this process, the difference between the legal structure and the operational structure of the group will increase. In consequence, it becomes harder to attribute activities to the legal entities on which the division of supervisory responsibilities is based. A large difference between the legal structure and organisational structure will complicate the execution of supervision, since supervision is based on statutory power to supervise legal entities and this may not correspond to where activities actually take place (Kremers, Schoenmaker and Wierts, 2003b). This tension between operationally integrated financial groups looking for synergies and legally constrained supervisors looking for an effective lever on key decision-makers of these financial groups poses a challenge for policy. We review the policy options in the next section.

4. Challenges for the supervisory framework
In this section, we focus on the prudential supervision of financial institutions. As can be concluded from section 2, payments systems are also important for maintaining EU-wide financial stability. See Bank of England (2004) for an interesting discussion of the spectrum of models for cross-border supervision of systemically important providers of infrastructure. Before reviewing the policy options for the future, we describe shortly the present institutional set-up of financial supervision and stability. When looking at the supervisory framework, it is important to take an integrated approach from preventive actions (prudential supervision and monitoring financial stability) to curative actions (crisis management). The relevant players are supervisory authorities, central banks (monitoring financial

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3 As an indication, Nordea’s Annual Report (2003) shows that 29.1% of its lending activities takes place in Sweden, 26.3% in Denmark, 21.3% in Finland, 15.1% in Norway and 8.3% in other countries.

4 The focus of this paper is on prudential supervision aimed at the safety and soundness of financial institutions. We do not discuss conduct of business supervision aimed at the relationships between financial institutions and their clients and, more broadly, the behaviour of financial institutions in financial markets. See Kremers, Schoenmaker and Wierts (2003b) for a discussion of the synergies and conflicts of interest between these two supervisory objectives.
stability as well as providing possible emergency liquidity assistance) and ministries of finance (bearing the ultimate cost of possible bail-out).

4.1 Present system of EU financial supervision

The current system of prudential supervision in the EU is based on the principle of home country control combined with minimum standards and mutual recognition. A financial institution is thus authorised and supervised in its home country and can expand throughout the EU (via offering cross-border services to other EU countries or establishing branches in these countries) without additional supervision. The host country has to recognise supervision from the home country authorities.

The arguments for home country control are twofold. First, it promotes the effectiveness of supervision, as the home supervisor is able to make a group-wide assessment of the risk profile and the required capital adequacy of financial institutions (i.e. the concept of consolidated supervision). The concept of consolidated supervision is well established in banking. The recently adopted Directive on Financial Conglomerates introduces a single co-ordinator who is responsible for group-wide supervision of financial conglomerates. However, the concept of solo-plus supervision is applied in insurance. The primary focus of supervision is on the separate legal entities (the solo-element) with some limited attention for group-wide supervision (the plus-element).

Second, home country control promotes the efficiency of supervision, as financial institutions are not confronted with different supervisors possibly resulting in duplication of efforts and a higher regulatory burden. Home country control is applicable to financial institutions that offer cross-border services to other EU countries or establish branches in these countries. In practice, however, financial institutions also operate through subsidiaries (separate legal entities) in other countries for reasons of taxation and limited liability (see section 3.2). These subsidiaries are separately licensed and supervised by the host country authorities (de jure control). The scope for control by host countries of these subsidiaries is limited in practice, as key-decisions are often taken at the parent company in the home country and the financial health of the subsidiary is closely linked (via intra-group transactions and/or joint branding) to the well-being of the financial group as a whole. The effective control of large financial groups is primarily in the hands of the consolidated supervisor in the home country (de facto control).

While home country control may be useful for the effectiveness and efficiency of prudential supervision, home country authorities are not responsible for the financial stability in host countries (Mayes and Vesala, 2000). Stability of the financial system is the remit of the host country. Increasing integration within the EU gives rise to cross-border spill-over effects or externalities. A failure in one country may cause problems in other countries. The policy question is whether home country control

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5 The revised Basle Concordat on international banking supervision introduced the concept of consolidation in 1983. In Europe the concept was adopted in the Consolidated Banking Supervision Directive 92/30/EEC (replaced by the Codified Banking Directive 2000/12/EC).
6 Financial Conglomerates Directive 2002/87/EC.
7 Insurance Groups Directive 98/78/EC.
for supervision and host country responsibility for financial stability is sustainable in an integrating market.

The present organisational structure of crisis management in the EU has been reviewed in the ‘Report on Financial Crisis Management’ (EFC, 2001). The guiding principles are that the instruments of crisis resolution are available at the national level and that the costs are born at the national level. As regards the instruments for crisis management, there is a strong preference for private sector solutions as opposed to public intervention tools (e.g. bail-out). In line with the allocation of supervisory responsibilities, the responsibility for decision-making in crisis situations regarding an individual institution and its branches rests with the home country authorities. However, home country authorities are not responsible for the financial stability of host countries. Moreover, the home country taxpayer may not be prepared to pay for cross-border spill-over effects of a failure. The Report therefore calls for enhanced co-operation between home and host countries for crisis-management. To achieve such enhanced co-operation incentives to co-operate may need to be improved.

4.2 Policy options for the future

On a conceptual level, the main policy options for the structure of financial supervision are summarised in table 5.8 In practice, several hybrid forms are possible. In the current system (row A), the home supervisor is responsible for a bank and its EU-wide branch network and is the consolidated supervisor as well. The host country is responsible for a bank’s EU subsidiaries and controls the stability of its financial system. As discussed above, the home and host authorities have to cooperate for financial supervision and stability.

The first alternative (row B) is to give the home supervisor full responsibility for the EU-wide operations, both branches and subsidiaries. The home supervisor can act on a national or a European mandate. In option B, the home supervisor keeps its national mandate and is the consolidated supervisor as well. The home supervisor will therefore be predominantly responsive to the needs of domestic depositors and concerned with domestic financial stability.

The second alternative (row C) is again to give the home supervisor full responsibility for the EU-wide operations, both branches and subsidiaries. In option C, the home supervisor has a European mandate to ensure that the interests of all depositors/countries are taken into account. In some form of European System of Financial Supervisors, national supervisors can work together with a decision-making body or agency at the centre (see below). Within the System, the supervisor in the country where the bank is head-quartered can then act as consolidated or lead supervisor. Accordingly for financial stability purposes, the home country authorities (supervisor and central bank) within the European System of Financial Supervisors and the European System of Central Banks (ESCB) can act within their respective Systems.

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8 We would like to thank Philipp Hartmann, one of the discussants, for suggesting to extend our original menu of 3 options (relabelled A, C and E) to 5 options.
The third alternative (row D) is to give the central body of some form of European System of Financial Supervisors full responsibility for the EU-wide operations, both branches and subsidiaries, of pan-European banks. Similar to option C, the central body has a European mandate to ensure that the interests of all depositors/countries are taken into account. Different from option C, the supervision is mainly conducted by the central body, which can work together with national supervisors. Breuer (2000) has advocated the approach of supervision of truly European banks by the central body. The central body acts as the consolidated or lead supervisor. The logical equivalent would be that the ECB is the focal point for financial stability within the European System of Central Banks (ESCB). In a crisis, the central bodies of the European System of Financial Supervisors and the European System of Central Banks take the lead within their respective Systems.

The fourth alternative (row E) is to give the host supervisor responsibility for operations in its country, both branches and subsidiaries. If a bank’s operations become significant in a country, the host country can require that bank to conduct these operations in a separate subsidiary to have a stronger lever on these operations. New Zealand is, for example, taking this approach as described in the annex.⁹ Supervisors work on a strict national mandate and are thus only responsible for financial supervision and stability in their own country. There is no consolidated supervision.

Summing up, three options assume a national mandate (A, B and E) with or without some form of cooperation. National supervisors keep their sovereignty. Two options (C and D) assume a European mandate (that is a European jurisdiction). Supervisors work on a supra-national basis.

Horizontally, table 5 provides the criteria to judge the different policy options:

1. Effectiveness of supervision: supervision of all parts of a financial group and consolidated supervision of the group as a whole;
2. Efficiency of supervision: no duplication or overlap of supervision;
3. Financial stability: cross-border externalities of a failure of a financial institution are incorporated;
4. Competitiveness of financial institutions: financial institutions can operate cross-border without additional burden (e.g. notification, regulatory reporting) and are allowed to realise synergies from centralised or integrated operations (e.g. risk management, asset management, back-office operations); and
5. Proximity to financial institutions: supervisor is close to the (main) operations of financial firms.

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⁹ Option E assumes that there is no consolidated supervision in the home country. Each supervisor confines itself to its national mandate. However, one could allow for consolidated supervision in the home country as New Zealand does. In that case there would be duplication between the work of the consolidated supervisor and the host supervisor.

¹⁰ Given the importance of financial conglomerates in the EU, we assume that national supervisors operate on a cross-sector basis. See Kremers, Schoenmaker and Wierts (2003a) on the different models of cross-sector financial supervision.
Table 5. Structure of financial supervision: policy options.

<table>
<thead>
<tr>
<th>Supervisory structure</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Home and Host (current system)</td>
<td>+</td>
</tr>
<tr>
<td>B. Home on the basis of a national mandate</td>
<td>+</td>
</tr>
<tr>
<td>C. Home on the basis of a European mandate</td>
<td>+</td>
</tr>
<tr>
<td>D. Central body on the basis of a European mandate</td>
<td>+</td>
</tr>
<tr>
<td>E. Host on the basis of a national mandate</td>
<td>+/-</td>
</tr>
</tbody>
</table>

**Assessment**

The different policy options are scored against the criteria in table 5. We consider the current system (option A) to be adequate, but not optimal. Supervision is effective. Home and host authorities work together for financial stability. However, coordination failure is possible during a crisis, as resolving cross-border externalities relies on voluntary cooperation (see section 4.1). Competitiveness is also half-way: cross-border expansion through branches can be done without extra supervision (only some minor notification procedures), but subsidiaries in the host country experience duplication in supervision from the supervisor in the host country and the consolidated supervisor in the home country.

According to the European Financial Services Round Table (EFR, 2004) a clearly defined lead supervisor (usually the home supervisor) for prudential supervision of cross-border financial institutions would be an important step towards a more coherent and efficient supervisory framework in the EU. The EFR argues that the lead supervisor should in particular be the single point of contact for all reporting schemes, validate and authorise internal models, approve capital and liquidity allocation, approve cross-border set-up of specific functions and decide about on-site inspections. Furthermore, the lead supervisor should not only be responsible for supervision on a consolidated level, but also on the solo and sub-consolidated level.

The EFR agrees that host countries should be involved in the supervisory process, as local supervisors have generally a better understanding of the local market conditions. The EFR suggests forming colleges of supervisors (one for each specific group) that advise the lead supervisor and discuss proposals of involved local supervisors, but would not have the power to delay decisions of the lead supervisor. As the role and the powers of the host supervisor in these colleges are non-committal, the actual involvement of host authorities can be limited in practice. The EFR recommendation seems to get close to option B.

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11 In cases of lasting differences of opinion, the EFR proposes to refer cases to the level 3 committees (CEBS, CEIOPS or the Conglomerate Committee), which can either act in an appeal procedure or could organise a mediation process. However, this
In our view the concept of a lead supervisor is not univocal and can be designed in different ways: the lead supervisor authority can either be the home supervisor, on the basis of a national or European mandate (option B or C), or a central EU body (option D). We would therefore like to take the analysis one step further and look at the pros and cons of these different options.

In comparison with option A, both the efficiency of supervision and competitiveness of the financial sector are enhanced under option B. Nevertheless, option B does poorly with respect to financial stability, as the national mandate does not induce the lead supervisor to incorporate the cross-border externalities of a failure of a financial institution in its decision making.

Option C does well on all five criteria; by taking the mandate to the European level, cross-border externalities are taken into account and duplication in supervision is avoided. This European mandate can be created through some form of European System of Financial Supervisors, created by the national supervisors in tandem with a centralised body. Key supervisory decisions as well as the design of policy are done at the centre (in the same way as the ESCB takes decisions on monetary policy). In this way, host country authorities are fully involved and the interests of their depositors are fully taken into account. Day-to-day supervision is conducted by the home country close to the financial firms.

Option D does well on the first four criteria. Similar to option C, it is operating within a European System of Financial Supervisors. But it could be placed too far away from the (main) operations of financial firms to execute its supervisory responsibilities properly, as the focal point for day-to-day supervision will be at the central body in option D. This is different from option C, where the focal point remains with the home supervisor. Option D has been promoted by Breuer (2000, p.9) who proposes that “it may also be sensible to have those banking groups that operate on a truly European scale supervised directly by the central agency”. The appropriate degree of (de)centralisation is discussed in more detail in section 4.3.

Finally, option E would reverse the process of financial integration promoted by the Single Market Programme and the Financial Services Action Plan. Significant cross-border activities have to be conducted through a subsidiary in the host country. Financial firms are then not able to realise synergies from centralisation or integration. There is, however, no duplication of supervision, as each supervisor is concerned with operations in its own national jurisdiction. Finally, financial stability cannot be effectively managed due to the lack of cooperation between home and host country authorities. Option E is basically the establishment of autarky.

seems to us a rather bureaucratic process which does not enhance timely decision making.

To draw the parallel in more detail, option B (lead supervisor with national mandate) is similar to the European Monetary System (EMS) in the pre-EMU era. The leader, Germany, used to set interest rates that fitted the German economy. To maintain stable exchange rates in EMS, other countries had to follow German interest rates. Options C and D are similar to stage 3 of EMU. The decision on interest rates is taken collectively by the Governing Council that consists of the Executive Board of the ECB as well as the Governors of the participating National Central Banks. An important feature is that members of the Governing Council have to vote on interest rates with conditions of the euro area in mind and are not allowed to base their vote
Based on the five criteria to judge the available policy options, we conclude that option C (home on the basis of a European mandate) is the best supervisory structure to deal with the challenges posed by the growing interdependence of EU financial systems. Option C follows the “decentralised” element of the lead supervisor concept promoted by the EFR, but adds the novel element of a European mandate to allow for adequate involvement of host country authorities.

4.3 Other aspects
When considering option C (home supervisor with a European mandate), there are some further aspects to be explored. These are (i) the appropriate level of (de)centralisation, (ii) the geographical reach (regional or EU-wide), (iii) degree of financial integration, (iv) deposit insurance and (v) the fiscal mechanism.

(i) level of (de)centralisation
Centralisation of supervision may become desirable to preserve financial stability in an integrating European financial system. The policy challenge is to deal effectively with cross-border externalities. If and when the intensity of cross-border externalities increases, supervisory as well as crisis management decisions may need to be taken at the European level to incorporate these externalities. One can think of a body at the centre working in tandem with the national supervisors: a ‘European System of Financial Supervisors’ (Schoenmaker, 2003; Vives, 2001). Such a system could evolve from the newly created supervisory committees at level 3, similar to the creation of the ESCB.

Would the possible establishment of a European System of Financial Supervisors necessarily result in a predominantly centralised system of supervision? There is a strong case for decentralisation. First, there are many small and medium-sized financial institutions which operate mainly within national borders. There is no need for involvement at the European level for these institutions. Padoa-Schioppa (1999) draws an interesting picture citing from Italian experience:

1. small banks are supervised by the respective regional branch of Banca d'Italia;
2. national banks are supervised by the respective branches but key-decisions are taken at the headquarters of Banca d'Italia in Rome;
3. pan-European banks are supervised by a group of national supervisors working collectively in a multilateral mode as a single consolidated supervisor.

Second, financial supervision should be executed at the local level where the financial institutions are based. The use of field inspections is an important tool of prudential supervision. By being close to the coal face, supervisors would get a feeling for what is going on at an institution and would also be more familiar with local market conditions in which an institution is operating. For pan-European financial institutions, the ‘lead supervisor’ should thus remain located near the head office of the financial institution.\textsuperscript{13}

\textsuperscript{13} If needed, the lead supervisor could engage local supervisors to visit branches and subsidiaries located in other EU countries, while keeping full responsibility. This would create a team that consists of the lead supervisor in the home country and
Policy rules (e.g. the rulebook and reporting requirements for institutions under supervision) and information pooling (e.g. reporting format and computer systems) may at some stage and in some form be made uniform. Such a uniform policy framework would very much be built on the unified regulatory regime established by EU Directives. Next, appropriate decision-making and incentive mechanisms should be designed to ensure that local supervisors adhere to this policy framework. Furthermore, information pooling will allow effective market surveillance of systemic risks (including a peer group analysis of large pan-European financial institutions).  

(ii) geographical reach
Of the top 30 EU banks, 9 banks are found to pose significant cross-border externalities (see section 2.2). Some of these ‘European’ banks are regional: Nordea, Fortis, HypoVereinsbank and Groupe Caisse d’Epargne. The remaining can be regarded as pan-European (ABN AMRO, Deutsche, BNP Paribas, KBC and Westdeutsche Landesbank) operating throughout the EU. While an EU-wide mandate is needed for the latter, regional mandates can be applied to the former. Arguably, Nordea is the most pressing case at the moment. Nordea will adopt a European charter and has a significant market share in all Scandinavian countries. Furthermore, Nordea’s business in its home market is compared to that of other EU banks relatively low: 28% as illustrated in table 3.

It may be tempting to start a regional solution among Scandinavian authorities (supervisors, central banks and ministries of finance) to address the Nordea case. However, ‘good’ policy-making suggests that one would first design (and negotiate) the preferred end-model with an EU-wide mandate. Next, further regional steps could be taken if and when needed within the confines of this end-model, before (full) implementation of the end-model. Otherwise, regional steps may need to be reversed when wider solutions are introduced.

(iii) degree of financial integration
There is still some work to do on the Single Market front before a new system of home supervision with a European mandate can operate fully. Key areas are legal and taxation systems (Heinemann and Jopp, 2002; Dermine, 2003). Consumer protection and contract law are rooted in national legislation. Corporate tax and VAT are also nationally organised. As described in section 3.2, firms tend to integrate their activities and management functions to achieve economies of scale. If shared services centres sell their services across countries, these services incur VAT charges (Schütze, 2004). These are important elements on the not yet fully complete Single Market agenda.

(iv) deposit insurance
The move to a European mandate causes intractable problems for the currently nationally organised deposit insurance funds. There is a diversity of funds with differing set-ups: levying premium, or not; level of premium if one is levied; organisational structure (private or public). As a result, some funds are fully funded, others partly and the remaining not at all. Branches are covered by the fund from the supervisors in the host countries.

14 An instructive example of decentralisation is presented by the organisational structure of the two federal banking regulators in the US, the OCC and the Fed (see Schoenmaker, 2003).
home country and subsidiaries by the host country.\textsuperscript{15} When a bank switches from subsidiaries to branches (or the other way round), there are no provisions for a possible transfer of funds. There can thus be (huge) swings in the premium for the bank, if it moves from a fully funded scheme to a less funded scheme. This seems to be the case for Nordea (Schütze, 2004). This is an area for further research and policy-making.

(v) fiscal mechanism

Following financial supervision arrangements, crisis management would need to be organised with a European mandate. This implies that emergency liquidity assistance is provided at the European level. The key in the Statute of the ESCB and ECB to distribute monetary income could, for example, be applied to share the possible cost of LOLR operations. This key is based on an average of the share in total GDP and total population of the participating members.

European supervision also raises the thorny issue of who should bear the fiscal costs of a possible bail-out. The first-best solution is to keep decision-making on supervision and fiscal bail-outs at the same level. Moving the supervisory function to the European level, while leaving the fiscal function at the national level, would cause problems. Following the principle “he who pays the piper calls the tune”, the national ministry of finance would like to control the supervisor if the national tax-payer is seen as to be potentially liable (Goodhart and Schoenmaker, 1995).

In a recent lecture, Goodhart lucidly remarks that:

\begin{quote}
“Absent such a shift of the fiscal competence for crisis resolution to the EU level, calls for transfers of supervisory functions to a central, European body are, in my view, nugatory and little more than whistling in the wind. That brings us back to the question of how to share the burden of rescues when the relevant public authorities are national but the financial system is international.” (Goodhart, p.8, 2004)
\end{quote}

However, there is no meaningful European budget which can be drawn upon for such cases. Moreover, a fixed rule to share the costs (e.g. the above mentioned ESCB key) may give rise to moral hazard, as countries with a weak financial system may face reduced incentives to prevent potential bail-outs. A fixed rule may thus not be politically feasible (or desirable), as countries with a strong financial system may not be prepared to pay up each time.

Further research is needed to explore mechanisms for co-operation between a putative European system of financial supervisors and national tax-authorities to deal effectively with pan-European threats to financial stability. Crisis management would also include the ECB (and the relevant national central banks) and possibly the European Commission. Could such co-operation really be effective? There is a precedent in European history that contains many of the characteristics that are relevant in this case: speedy confidential decision-making by many (inter)national players. In the former European Monetary System, confidential decision-making on realignments took place over the weekend, involving Ministers of Finance, Central Bankers and the European Commission. The rules of procedure of this committee could serve as a starting point for thinking about the development of a

\textsuperscript{15} Deposit Guarantee-Schemes Directive 94/19/EC.
European structure for crisis management (Kremers, Schoenmaker and Wierts, 2003a). To simplify matters, only the ministers of finance and central bankers of the countries affected (in addition to a putative European System of Financial Supervisors, the ECB and possibly the European Commission) should be involved.\(^\text{16}\)

5. Conclusions

Supervisory structures should, in our view, adapt to market developments and not the other way round. The paper therefore starts with examining the current state of integration of EU financial markets. Ongoing financial integration fostered by the advance to EMU and the nearly full completion of the Financial Services Action Plan gives rise to increasing cross-border penetration of interbank markets and payment systems, which are important channels for cross-border contagion. Furthermore, emerging pan-European and regional banks give rise to cross-border externalities arising from the (potential) failure of these banks.

Due to these market trends, it is increasingly difficult to organise financial supervision and stability on a predominantly national basis. This raises the question of the appropriate division of responsibilities between home and host authorities and their mandate (national or European). To stay close to the operations of financial institutions, it is argued that the supervisor of the home country should act as lead supervisor, but with a European mandate to incorporate cross-border effects. The focal point would remain at the national level, as the home supervisor would conduct the day-to-day supervision. The European mandate can be created through some form of European System of Financial Supervisors, created by the national supervisors in tandem with a centralised body. Key supervisory decisions as well as the design of policy are done at the centre. In this way, host country authorities are fully involved and the interests of their depositors are fully taken into account. European structures raise the thorny issue of dividing the fiscal costs of possible bail-outs. The paper explores some avenues for further research in this area.

Efficient supervisory structures are also important for the competitive position of EU financial institutions. A system with home country supervision and no duplication by host countries with (slightly) different requirements and reporting formats (as is currently the case for subsidiaries) would reduce the burden on financial institutions and foster cross-border expansion within the EU. This would put European banks at par with their counterparts from the US, where the remaining barriers to interstate banking and branching were lifted in 1994.\(^\text{17}\)

\(^{16}\) In the case of Fortis (a Belgian-Dutch financial institution), for example, the Dutch and Belgian authorities would in conjunction with a putative European System of Financial Supervisors and the ECB take decisions on crisis resolution.\(^\text{17}\) See Barth, Brumbaugh and Wilcox (2000) for a review of the liberalization of the US financial system.
Annex: The New Zealand example

How do countries deal with home/host issues in cross-border financial supervision? On the one hand, authorities can decide to maintain supervisory control over all systemic relevant banking entities within their jurisdiction. On the other hand, authorities can try to facilitate the market by providing less complicated and less costly rules for streamlining cross-border operations. In New Zealand the authorities chose for the first option, while the EU will soon introduce new legislation that makes it easier to organise cross-border activities through branches (the European Company Statute, see section 3.2).

In order to maintain direct control over relevant entities within its jurisdiction, the authorities in New Zealand require some overseas banks to establish locally incorporated subsidiaries instead of operating as branches (Reserve Bank of New Zealand, 2004). Under this policy, banks in the following categories are required to establish a locally incorporated subsidiary for their New Zealand operations:

- Systemically important banks - that is, banks large enough to materially affect the operation of the financial sector as a whole;
- Banks that take a significant level of retail deposits and come from countries with legislation giving home country depositors a preferential claim in a winding up. Currently both the United States and Australia have such legislation;
- Banks that take a significant level of retail deposits and which, in their home countries fail to publish the full information depositors would need to assess financial soundness.

Banks that do not fall into one of those categories can continue to choose whether they operate a branch or a subsidiary in New Zealand.
References


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