

**The Supervision of Banks
in Europe: The Case for a
Tailor-made Set-up**

Occasional Studies

Vol.6/No.4 (2008)

*Aerdt Houben, Iskander Schrijvers and Tim Willems**

The Supervision of Banks in Europe: The Case for a Tailor-made Set-up

Central bank and prudential supervisor of financial institutions

©2008 De Nederlandsche Bank NV

Corresponding authors: Aerd Houben, Iskander Schrijvers and Tim Willems
e-mail: a.c.f.j.houben@dnb.nl, i.p.schrijvers@dnb.nl and tim.willems@hotmail.com

Aim of the Occasional Studies is to disseminate thinking on policy and analytical issues in areas relevant to the Bank.

Views expressed are those of the individual authors and do not necessarily reflect official positions of De Nederlandsche Bank.

Editorial Committee:

Jan Marc Berk (chairman), Eelco van den Berg (secretary), Hans Brits, Maria Demertzis, Peter van Els, Jan Willem van den End, Maarten Gelderman, Klaas Knot, Bram Scholten and Job Swank.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopy, recording or otherwise, without the prior written permission of the Nederlandsche Bank.

Subscription orders for DNB Occasional Studies and requests for specimen copies should be sent to:

De Nederlandsche Bank NV
Communications
P.O. Box 98
1000 AB Amsterdam
The Netherlands

Internet: www.dnb.nl

The Supervision of Banks in Europe: The Case for a Tailor-made Set-up

Aerdt Houben, Iskander Schrijvers and Tim Willems*

Abstract

This paper investigates the institutional set-up of European banking supervision against the backdrop of the current structure of the European banking market. Point of departure is that, in order to avoid incentive problems and white spots, the institutional structure of supervision should reflect the structure of the market under supervision. Based on different data for the largest entities, the paper seeks to determine the prime orientation of European banks: is this national, regional, pan-European or global? It is established that European banks are still primarily nationally oriented, that the number of internationally oriented banks is small, and that global activities are almost as large as European ones. Moreover, these banks' European activities are shown to be clustered, reflecting different regional orientations. In the absence of substantive pan-European banks, this differentiated market structure calls for a tailor-made approach to supervision in Europe. This suggests building forth on the model for consolidated supervision.

* De Nederlandsche Bank (DNB), Supervisory Strategy Department, P.O. Box 98, 1000 AB Amsterdam, The Netherlands. E-mail: a.c.f.j.houben@dnb.nl, i.p.schrijvers@dnb.nl, tim.willems@hotmail.com. We thank Jack Bekooij for excellent research assistance. All customary disclaimers apply.

This is a post-peer-review, pre-copyedit version of an article published in the Journal of Banking Regulation (JBR 9:4, Oct. 2008), available at: <http://www.palgrave-journals.com/jbr/index.html>.

Table of contents

1	Introduction	7
2	The current European supervisory structure for cross-border banks	8
3	Alternative supervisory structures	11
3.1	A Pan-European Financial Authority	11
3.2	A European System of Financial Supervisors	12
3.3	Consolidated supervision	13
4	Empirical findings	16
4.1	Are EU banks predominantly nationally oriented?	16
4.2	Are non-domestically oriented EU banks predominantly European or global?	19
4.3	Are non-domestically oriented European banks predominantly pan-European or regional?	21
5	Supervisory implications: the need for a tailor-made set-up	26
6	Conclusions	29
	References	31

I Introduction

European integration and broader globalisation have spurred cross-border mergers and acquisitions (M&As) in virtually all economic sectors. Until recently this process was less prominent in the banking sector (Bini Smaghi 2007 and ECB 2005-07).¹ However, both the number and value of European cross border M&As in the financial sector have been on the rise of late, reflecting European banks' strategic pursuit of diversification benefits and economies of scale and scope.² Underlying factors have been liberalisation and deregulation, as well as progress in information technology. This development has fuelled a discussion on whether the current institutional set-up of prudential supervision in Europe is still suited to deal with the emerging economic reality of large cross-border exposures, especially in the banking sector. In this context, some have even clamoured for the introduction of a centralised, pan-European supervision of banks.

To promote the solidity of individual financial institutions, and therewith of economy-wide financial stability, while minimising any ensuing distortions, the supervisory set-up needs to be both effective and efficient. In a cross-border context, this requires harmonised supervisory standards, adequate decision-making power, balanced incentives, limited supervisory layers and reliable insights into the specific circumstances of institutions under supervision. Clearly, in a tightly integrated banking sector, as may be expected in Europe in the long run, this implies an integrated, centralised form of supervision. But the key question is: does the current structure of the European banking sector already call for a centralised supranational European supervisory authority? Or would a pan-European approach likely reduce the efficacy and efficiency of supervision? Is there an intermediate, tailor-made set-up?

The question what supervisory model corresponds best with the current structure of the European banking landscape is central to this paper. To address this question, section 2 discusses the existing supervisory structure governing cross-border banking activities in Europe, together with its strengths and weaknesses. Three alternative approaches are presented in section 3, again along with their strengths and weaknesses. Section 4 then analyses the empirical features that characterise the European banking sector. This sets the stage for a discussion on the currently preferable supervisory structure for European banks in section 5, including remaining challenges. Section 6 concludes.

2 The current European supervisory structure for cross-border banks

The current EU supervisory structure for cross-border banks finds its origin in the First and Second European Banking Directives (1977, 1988), and has evolved through a number of additional legislative acts commonly referred to as the ‘Single Market Programme’.³ Today it represents a mixed form of home- and host-country control on the basis of the subsidiarity principle, supported by a limited number of Articles in the Capital Requirements Directive (CRD) on consultation, co-operation and information-sharing (Art. 129-132). Article 129 goes furthest in granting decision-making power to the home supervisor, specifically for the authorisation of group-wide internal risk based models.⁴ The CRD is supplemented by provisions for mutual recognition and co-operation among supervisory authorities laid down in so-called ‘Memoranda of Understandings’. These MOUs are mostly bilateral and generally include practical provisions with respect to co-operation and information sharing in ongoing supervision, including in the field of on-site inspections.

More specifically, the allocation of supervisory responsibilities currently depends on whether foreign operations are run as branches or subsidiaries. In the case of branches, the consolidating (or group) supervisor in the country where the parent of the group is incorporated (the home country) is responsible for prudential supervision and the provision of deposit insurance.⁵ In the case of subsidiaries, these responsibilities are borne by the sub-consolidating supervisor in the country where the subsidiary is located as a separate legal entity (the host country). Since preserving financial stability is still primarily a national responsibility and given that emergency lending requires local currency, the host central bank acts as the lender of last resort.⁶ Finally, the consolidating supervisor is responsible for the stability of the entire group on a consolidated level. To that end Article 129 stipulates that the consolidating supervisor shall co-ordinate the gathering and dissemination of relevant information and the planning of supervisory activities both in going concern and emergency situations.

This set-up has the advantage of safeguarding the interests of host countries in the case of foreign subsidiaries over which the host country supervisor has direct supervisory power, while also advancing adequate supervision at the consolidated or group level. Nonetheless, the current supervisory structure suffers several substantial disadvantages. First, externalities may arise on account of the incongruity in coverage between the responsibilities for supervision, on the one hand, and those for financial

stability and crisis management, on the other hand. In particular, negative spill-over effects may occur in the case of foreign branches, which are of systemic importance to the host country but are insignificant to the home country. The home supervisor may then attach less importance to sustaining such a branch, since its failure would not endanger financial stability in its own country (Bollard, 2005). For this reason supervisory authorities in Eastern Europe are reluctant to allow banking activities in the form of foreign branches in fear of losing control over their national financial stability (Markowski, 2003). In fact, New Zealand requires foreign banks to operate via subsidiaries—over which it has supervisory power—rather than branches, as its banking sector is dominated by Australian banks that are not systemically important to the Australian financial system (Reserve Bank of New Zealand, 2004). In the EU the majority of cross-border banking activities are currently undertaken through subsidiaries, but the share of branches is also significant. However, expansion through subsidiaries has become relatively more common in recent years, reflecting increased cross-border penetration into retail markets.⁷

Second, it is doubtful whether the current set-up has sufficient incentives for the supervisors involved to pass on information adequately (Speyer, 2001). Supervisory authorities in one country may tend to limit the knowledge about mishaps they share with partner supervisory authorities in order to avoid loss of confidence in an institution or to cover up own failings. This may undermine the efficacy of supervision in normal circumstances.

Third, the current structure of co-operation between supervisors built upon MOUs is laborious and may prove unstable under stress or in times of crises. After all, MOUs do not—and can not—cover all eventualities, are not legally enforceable and lack political accountability. Were an extremely adverse event to occur, prerogatives may be questioned, a supervisory party may be tempted to renege on earlier agreements and any other party would have no formal means of opposing. Moreover, information sharing may then become slower and more patchy, thereby lessening the speed and quality of decision-making. These are essential elements in crisis management, which may thus become less effective.

A fourth disadvantage is its administrative inefficiency. Given the predominance of cross-border activities via legally separate subsidiaries, the current supervisory structure implies that cross-border banks have to deal with numerous different supervisors and accompanying regulations. A typical large financial institution might have to report in a variety of formats to more than 20 autonomous supervisors within the EU (Pearson, 2003). This implies an onerous administrative and regulatory burden. In response, Nordea (the largest banking group in Scandinavia, headquartered in Sweden) has raised the idea of converting all its foreign subsidiaries into branches—thereby bringing all regulatory issues back to its consolidating supervisor, the Swedish *Finansinspektionen* (Mayes, forthcoming).

In sum, the current supervisory set-up is not fully equipped to deal with the challenges of a cross-border banking system: incentives for information sharing may be inadequate, co-operation is laborious and may founder under stress, and

institutions' administrations are heavily burdened. In some instances, the regulatory environment even dictates the business structure. In this light, with a view to fostering both a market-driven and stable development of the European banking system, consideration should be given to alternative supervisory structures.

3 Alternative supervisory structures

In broad terms, amongst the alternatives to the current set-up that have been proposed for Europe, three supervisory models can be distinguished for cross-border operating banks: (1) centralised supervision conducted by a Pan-European Financial Authority (EFA); (2) co-ordinated supervision conducted by a European System of Financial Supervisors, comprising both a central EFA and all national financial authorities in the EU; and (3) consolidated (*lead*) supervision, comprising only the consolidated (*lead*) and sub-consolidated supervisory authorities actually supervising a given institution. This section weighs these alternatives, specifically by gauging the implications for information sharing, crisis management and financial stability, neutrality (i.e. ensuring a level playing field), political accountability, as well as for the efficiency of the banks and the supervisor. A tentative assessment is also given of the political feasibility.

3.1 A Pan-European Financial Authority

In this model, supported for instance by Breuer (2000), Couppey-Soubeyran and Sessin (2001) and Arnold (2007), a central body is fully responsible for the supervision of all cross-border activities through branches and subsidiaries of EU banks. This central body, commonly referred to as the European Financial Authority (EFA), co-operates with the representatives of all 27 EU supervisors in on-going supervision and crisis management. Indeed, a variant of this model has a two-tier structure in which the centre directly supervises all institutions with significant cross border activities in the EU and delegates the supervision of domestically oriented banks to the national supervisors. However, in each variant of this model, all ultimate decision making takes place at the centre and any decentralised implementation also falls under the centre's responsibility and control.

Supervision by a single, pan-European supervisor would have the advantage of creating unambiguous incentives. Conflicts of interest between EU countries would no longer influence supervisory actions and all possible cross-border externalities would be internalised. The EFA would promote a level playing field and would have a clear-cut mandate to promote financial stability in the EU. Administrative procedures would be harmonised to the extent possible, duplication of supervisory activ-

ities would be avoided and decision-making could be quick in crisis situations.

On the other hand, a centralised pan-European supervisor would generally be located further away from the institutions it supervises and would thus risk lacking relevant, up-to-date knowledge of local financial conditions and practices. To the extent the EFA's executive bodies are lean, countries may feel ill-represented in (and may thus resist) its decision-making, while if all EU member states are represented, decision-making is likely to prove complex and time consuming. But the model's real impediment lies in its poor political feasibility. This relates, first, to the absence of a federal financing mechanism that would cover the costs of a possible bank bailout. Indeed, it is unthinkable that a centralised body would decide on supervisory actions, but would be able to leave eventual costs to be borne at the local level. Second, such a set-up would require a far-reaching institutional and legal convergence of national supervisory structures in the EU. While recent years has seen some convergence, notably a move to more integrated and autonomous supervisory authorities, major differences remain.⁸ Beyond this, in view of the current emphasis on subsidiarity, it is unlikely that politicians will agree with a transfer of supervisory responsibilities to a supranational European body. In all, implementation of this model in the near future seems unrealistic.

3.2 A European System of Financial Supervisors

The second model for the supervision of Europe's banks also concentrates decision-making, but places greater weight on the role of the national supervisors. The balance is delicate: international co-ordination is established in a European System of Financial Supervisors (ESFS) in which both the centre and the national supervisors are represented. Decision-making within this ESFS is similar to that on monetary policy by the European System of Central Banks (*viz.* in a Council, by majority voting, with each member state in principle having a single vote alongside the representation of the ECB as the centre). Supervisory implementation is expressly decentralised. In this model, the consolidated supervisor is responsible for supervising all EU-wide operations of a given bank, including its branches and subsidiaries, but any sub-consolidated supervisor can appeal to the ESFS if it feels its interests are insufficiently taken into account. If the ESFS subsequently judges a complaint well-founded, it may overrule the consolidated supervisor. Crisis management is decided upon at the European level, although the national teams of the relevant sub-consolidated supervisors remain in charge of implementation. Vives (2001), Schoenmaker and Oosterloo (2006), and Schoenmaker and Van Laecke (2006) have advocated this model.

An ESFS would provide cross-border banks in Europe with the advantage of having a single point of contact—in first instance the consolidating supervisor. Supervisory work programs and administrative reporting would be streamlined. In addition, the decentralised supervisory implementation would ensure geographical

proximity between the supervisor and the bank, and thus adequate knowledge of local circumstances. At the same time, the inclusion of all national supervisors in the ESFS would support the model's democratic accountability, while the sub-consolidated supervisors' recourse to appeal would serve to minimise unwarranted externalities.

However, an ESFS set-up would also have heavy drawbacks. Importantly, the decision-making process would likely prove laborious. Representatives of each of the 27 Member States would be in the position to engage in discussions on the supervision of any specific bank in the ESFS Council—even if most of these representatives were not directly involved as consolidated or sub-consolidated supervisors. It is doubtful whether this would lead to expedient decision-making and crisis management. In practice, given the absence of a clearly defined and measurable EU-wide supervisory objective, the greater number of possible policy instruments as well as the considerably larger national trade-offs, decision-making in an ESFS would prove much more difficult than monetary policy decision-making in the ESCB. Moreover, given the checks and balances in the ESFS, this set-up would likely lead to supervisory duplication between the central body and the national authorities. On top of these difficulties, this model's centralisation of power, in absence of a federal financing facility and with still divergent supervisory structures and mandates, limits its political feasibility.

3.3 Consolidated supervision⁹

In the consolidated supervision model, the consolidating (or home) supervisor bears final responsibility for all European operations of a bank, including those of any legally separate subsidiaries. To ensure their different interests and expertise are well-represented, 'Colleges of Supervisors' are created that bring together the supervisory authorities of all countries where an institution has substantial operations.¹⁰ In these Colleges, insights on local market conditions are shared and cross-border issues are co-ordinated. In principle, decision-making is on a consensus basis and all are committed to seeking such consensus, but the consolidated (home) supervisor has the final say in case of a stalemate. This is similar to the previously mentioned clauses on model validation in the CRD, which prompt consolidated and sub-consolidated supervisors to agree but ultimately allow the consolidated supervisor to decide (Art. 129, CRD). In a crisis, the College of Supervisors changes character and is transformed into a crisis management team under chairmanship of the consolidated supervisor.

The consolidated supervision model is forcefully supported by the financial sector, given its resemblance with the concept of lead supervision launched by the European Financial Services Round Table (EFR) in 2003, as well as by Schüler (2003). The NORDEA College of Supervisors serves as a practical example of the consolidated supervisory model. It brings together supervisory authorities from Sweden (as

Chair), Finland, Denmark, and Norway. Although not tested under stress, the College has functioned satisfactorily to date. Another practical application of the consolidated supervision model was proposed in the High Level Agreement between the UK's Financial Supervisory Authority (FSA) and the Dutch supervisor, De Nederlandsche Bank (DNB), following the take-over bid by UK Barclays Plc. of Dutch ABN AMRO. This agreement spelled out how the UK FSA and DNB would work together, including through an obligation to reach agreement on all material issues, but also that 'in the unlikely event' they could not reach a consensus, the ultimate responsibility for the consolidated supervision of the new entity would reside with the UK FSA. A similar agreement was reached following the competing take-over bid by a Royal Bank of Scotland (RBS) led consortium. Specifically, it was agreed that during the ensuing three year break-up period DNB would chair the College of Supervisors consisting of the UK FSA, Belgium's CBFA, and Spain's Banco d'Espagna, and would hold ultimate responsibility for the consolidated supervision of ABN AMRO.

The prime advantage of the consolidated supervision model is that it fosters supervisory knowledge-sharing and co-operation, while also creating a light structure for unambiguous decision-making. This model builds forth on current practices and structures and thus allows an evolutionary (organic) response to banks' increasing cross-border activities. As such, the model is consistent with the EU subsidiarity principle: it does not force a centralised solution on issues that can also be addressed in a decentralised manner. Since this model does not create a new supervisory layer and only involves supervisors with a direct responsibility for a given institution, it limits the weight of co-ordination efforts and avoids supervisory duplication. At the same time, by creating a single point of contact at the consolidated supervisor, it facilitates the management of harmonisation efforts and of financial crises.

However, there is also a flip side. As the ultimate decision-making in the College of Supervisors lies with the consolidated supervisor, there are no guarantees that the interests of sub-consolidated supervisory authorities will always sufficiently be taken into account. After all, the consolidated supervisor only bears responsibility for financial stability in its respective home region. Thus, the consequences of the failure of a branch or subsidiary may be underrepresented in final supervisory decisions. More specifically, the design of every College will prove challenging in terms of setting the thresholds for participation, the mechanisms for sharing and debating information, and the procedures for decision-making.¹¹ Besides this, the decentral approach to supervision increases the risk that supervisory guidance differs between countries, that this ruffles the sector's level playing field and that banks engage in regulatory arbitrage. Also, just as the other models, consolidated supervision lacks a financing mechanism to cover the costs of a possible cross-border bank bail-out.

While the consolidated supervision model's practical structure and the support of the sector suggest political feasibility, the potential under-representation of sub-consolidated supervisors' interests implies otherwise, especially as regards prospective host countries. In this respect, much depends on exactly how the aforemen-

tioned Colleges of Supervisors are structured, how much influence is bestowed upon them, how specific information is shared amongst its members, how specific co-operation agreements work out in practice, and how formal mediation mechanisms are framed that allow sub-consolidating supervisors to appeal final decision-making.

4 Empirical findings

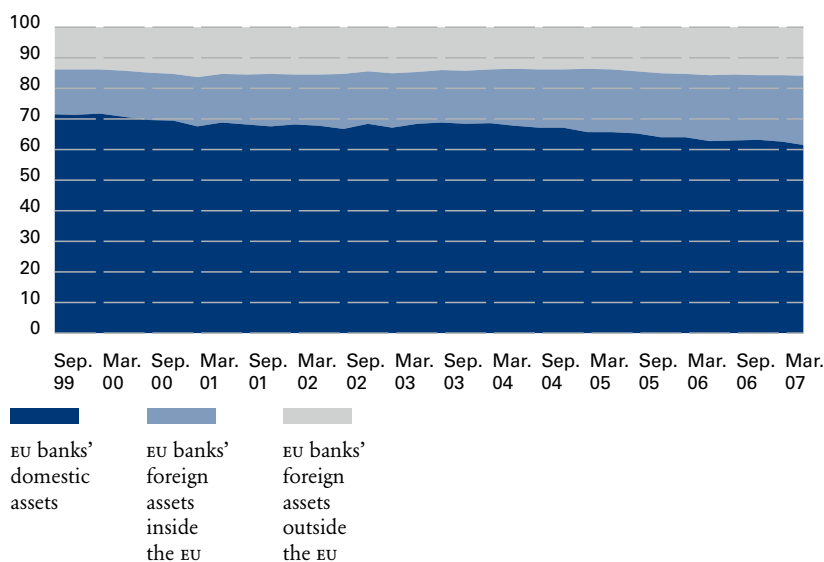
Each of the aforementioned supervisory models has pros and cons that depend chiefly on what the underlying banking structure looks like. Indeed, to avoid creating incentive problems (within both the supervisory bodies and supervised banks) while minimising the risk of supervisory white spots, the supervisory structure should broadly reflect that of the banking market. Thus, to ascertain the preferred supervisory set-up, this section analyses the current structure of the banking market in Europe. Specifically, three key questions are addressed: (1) to what extent is banking in the EU still nationally oriented? (2) to what extent are the cross-border activities of EU banks global rather than EU oriented? and (3) to what extent is cross-border banking in the EU pan-EU or regionally oriented? Taken together: is the banking sector in the EU primarily national, regional, pan-European or global?

4.1 Are EU banks predominantly nationally oriented?

To analyse the general orientation of the EU banking market, the geographic distribution of its banks' assets may be separated into domestic, European and rest of the world as in Figure 1. This serves to illustrate banks' ongoing internationalisation. In particular, it appears that since June 1999 the share of EU-15 banks' claims on other EU member states and on the rest of the world has grown substantively (from 15% to 23%, respectively 14% to 16%), while the share of their domestic assets has declined markedly (from 72% to 61%).¹² Nonetheless, the primary focus of EU-15 banks is still national.

But does this predominant domestic orientation apply to all individual EU countries? To answer this, the structure of the EU domestic banking market, rather than of EU banks, can be mapped out. This perspective highlights the macroprudential responsibility for financial stability in the national financial sector, rather than the microprudential responsibility for the financial solidity of individual banks. Thus, the domestic banking markets in the EU can be broken down into market shares of (1) domestic banks, (2) branches and subsidiaries from inside the EU, and (3) branches and subsidiaries from outside the EU. To the extent national banking structures vary markedly, this dissection can also be carried out for different country groupings in the EU. In this light, Figure 2 provides this breakdown for the EU 27, EU15 and the Central Eastern European countries (CEE*) separately.

Figure 1 Geographic distribution consolidated assets EU-15 banks, 1999-2007

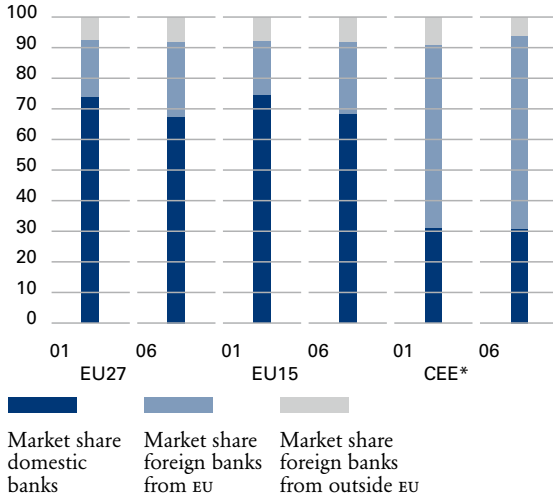


Source: BIS, IMF, ECB, BOE, OWN calculations.

In line with the previous findings, Figure 2 illustrates that: (1) the average market share of European branches and subsidiaries in the EU increased by a third from 18% to 24% between 2001 and 2006; and (2) the average share of domestic banks in domestic EU banking markets was still more than two thirds in 2006; but that (3) this overall picture is not representative for all EU-27 countries, as the banking markets of the Central Eastern European countries are evidently dominated by other EU banks. Also, the fact that the market share of banks from outside the EU is smaller than the share of EU banks' foreign assets outside the EU (Figure 1) indicates that the expansion of EU banks outside the EU is much greater than the penetration of foreign banks into the EU.

A final nuance relates to the different supervisory treatment of branches and subsidiaries. Since branches fall under the supervisory responsibility and deposit guarantee scheme of the home supervisor and thus resemble domestic banking activities, they pose considerably smaller supervisory co-ordination and incentive problems. Against this background, Figure 3 depicts what structures EU banks have chosen in the cross-border expansion of their activities. Two main messages emerge on the dynamics underlying the development of the European banking sector: (1) almost half of cross-border banking assets take the form of branches, but (2) cross-border expansion has been much higher through subsidiaries, particularly in the EU.

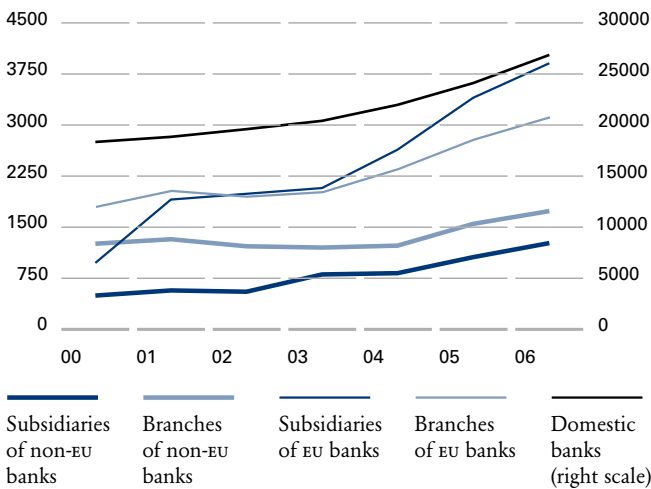
Figure 2 Market shares of domestic and foreign banks in the EU banking market (2001, 2006)



Source: Own calculations. Market shares weighted with countries' total assets. CEE* includes Cyprus and Malta.

In sum, while cross-border banking has clearly gained importance within the EU in terms of assets, so has cross-border banking with the rest of the world. However, in the aggregate the EU banking sector remains predominantly nationally oriented,

Figure 3 EU assets held by branches, subsidiaries, domestic banks, 2000-2006



Source: Own calculations.

albeit less so than ten years ago. Average foreign market share in EU 15 domestic banking markets is still relatively small, but in the CEE it is very large. Finally, in the last decade, banks' preferred way of going abroad within the EU has changed from branching out to using subsidiaries; this underscores the need for a structure that adequately involves host country supervisors.

4.2 Are non-domestically oriented EU banks predominantly European or global?

The aggregated data presented so far do not indicate whether individual institutions operate on a domestic, European or global basis, nor by implication to what extent the supervisory focus on individual institutions should be domestic, European or global. To shed light on this, we need a micro approach. A first such micro approach follows Sullivan (1994) and uses a Transnationality Index (TNI) to determine whether individual banks qualify as domestic or foreign. Sullivan developed the TNI to achieve a single, combined indicator for the degree of internalization

The TNI has since been applied to the banking sector by Slager (2004), Schoemaker and Oosterloo (2005), and Schoemaker and van Laecke (2006). The TNI is 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.¹³ The TNI can be used to determine how many credit institutions in the EU classify as international in the sense that they employ substantial cross-border activities and generate a significant share of total income outside their home country (Table 1).¹⁴

When internationally oriented banks are defined as banks with more than 50% of their business in foreign markets ($h \leq 0.5$), it appears that in 2005 no more than 11 banks could be seen as international.¹⁵ These internationally oriented banks can be classified as either 'European' or 'global' banks, depending on whether the share of their foreign activities in the EU is larger than that in the rest of the world ($e > w$ respectively $w > e$).¹⁶ As shown in Table 2, application of these definitions results in a narrow identification of only five major European banks in 2005, which have more than half of their activities abroad and for which the EU market is the most important foreign market. At the same time, of the 11 foreign oriented banks, six turn out to be classified as global. Indeed, in contrast with the macro picture for the total banking sector, the micro data for the largest banking groups indicate a stronger focus on activities outside the EU than inside the EU (25% respectively 22%).

As to end-of-year dynamics, Table 3 shows that the total number of non-home based banking groups increased only slightly from 10 in 2000 to 11 in 2005. Moreover, the total number of European banks remained more or less stable at 5 from 2002 onwards, while the number of global EU banking groups increased by one from 5 to 6. In sum, this micro perspective leads to three conclusions: internationally oriented banks are scarce in Europe, they are almost as often globally as they are EU oriented, and dynamics have been low.

Table 1 Geographic focus according to TNI for the top 28 European banking groups, 2005

	Banking group	Home (h)	Euro- pean (e)	World (w)	Tier I (\$bn.)
1	HSBC	25	9	65	67,3
2	Crédit Agricole Groupe	83	9	8	63,4
3	Royal Bank of Scotland	77	7	16	43,8
4	HBOS	90	5	5	36,6
5	BNP Paribas	55	21	24	35,7
6	Santander Central Hispano	40	26	34	33,3
7	Barclays	50	16	34	32,2
8	Rabobank	73	14	13	30,8
9	ING Group	23	29	48	28,8
10	ABN AMRO	34	30	36	27,0
11	Deutsche Bank	28	36	36	25,5
12	Groupe Caisse d'Epargne*	70	10	20	25,1
13	Société Générale	57	21	21	25,0
14	Crédit Mutuel	100	0	0	24,8
15	Lloyds TSB	95	3	3	22,6
16	HypoVereinsbank	-	-	-	21,4
17	Banca Intesa	76	15	9	21,2
18	Banco Bilbao Vizcaya Argentaria	40	3	57	20,0
19	Fortis Group	48	47	6	19,5
20	Groupe Banques Populaires	92	4	3	18,3
21	UniCredit/HypoVereinsbank	24	72	4	16,8
22	Dexia	51	37	12	15,0
23	SanPaolo IMI	92	7	2	14,8
24	Nordea Group	25	75	0	14,4
25	Commerzbank	71	25	5	14,3
26	KBC Group	50	29	21	13,4
27	Bayerische Landesbank	78	14	7	12,8
28	Caja de Ahorros y Pen. de Barcelona	98	2	0	11,5
	Weighted average over all 28 banks*	54	22	25	

Source: Schoemaker and van Laecke (2006) and own calculations. Ranked according to capital strength (Tier I capital). ** : ranking and weighted average corrected; † : acquired by another bank.

Table 2 TNI for 11 non-home based European banking groups, 2005

Classification	Bank	Home (h)	Europe (e)	World (w)
<i>European</i>	Fortis	48	47	6
	KBC	50	29	21
	Nordea	25	75	0
	Unicredit	24	72	4
<i>Global</i>	ABN AMRO	34	30	36
	Barclays	50	16	34
	BBVA	40	3	57
	Deutsche Bank	28	36	36
	HSBC	25	9	65
	ING	23	29	48
	Santander	40	26	34
Weighted average		35	34	31

Table 3 Non-home based European banking groups based on TNI, 2000-2005

Classification	2000	2001	2002	2003	2004	2005
<i>European</i>	3	6	5	4	5	5
<i>Global</i>	7	5	5	6	6	6
Total	10	11	10	10	11	11

Source: Schoemaker and van Laecke (2006), own calculations.

4.3 Are non-domestically oriented European banks predominantly pan-European or regional?

Although there are only a limited number of internationally oriented banks in the EU, a subsequent question is whether these banks' activities are pan-European or predominantly regional. Put differently, do cross-border activities within the EU encompass most (or all) EU jurisdictions, or are they focussed on selected parts of the union? This has a bearing on the structure of supervision, as a preponderance of pan-European banks would call for a pan-European supervisory structure.

Table 4 sheds light on this issue by identifying the number of European countries in which internationally oriented banks have a substantive presence (with substantive defined as a participation above 1% of the balance sheet total). It appears that the cross-border banking groups are generally substantially active in only a small number of other EU countries: on average, the European oriented banks are

Table 4 European activities of 11 non-home based European banking groups, 2005

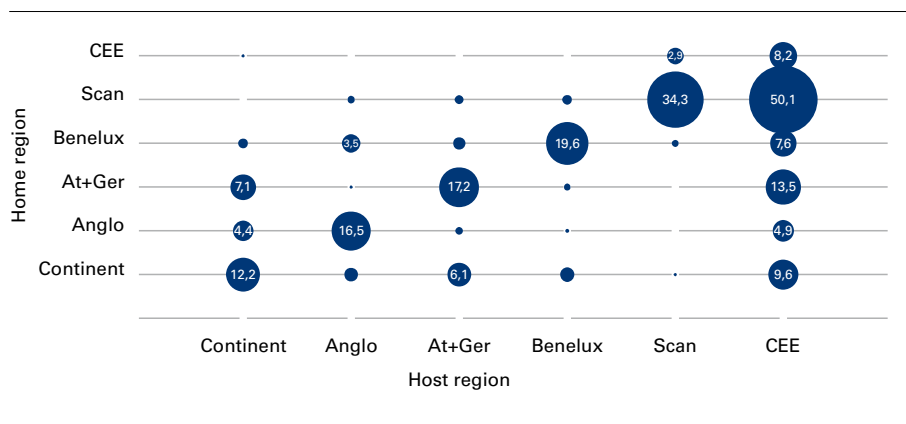
Classification	Bank	Number of European countries with substantial activities
European	Fortis	5
	KBC	6
	Nordea	3
	Unicredit	7
	Deutsche Bank	4
Average for European banks		5,0
Global	ABN AMRO	2
	Barclays	1
	BBVA	3
	HSBC	1
	ING	7
	Santander	3
Average for global banks		2,8
Overall average		3.8

Source: ECB (2007), EC (2005, 2006), own calculations based on banks' Annual Reports for 2005; number of countries relates to cross-border activities and excludes the home country. A bank has 'substantial' activities in another country if it has more than 10% of its balance sheet invested there.

found to have substantial activities in just 5 of the 26 other EU countries, while this is less than 3 for globally oriented banks. Only four banks had substantial cross-border undertakings in five or more EU countries.¹⁷ In other words, European banks are far from pan-European.

A second, more detailed micro approach, looks at the cross-border market shares of 46 large banking groups in the EU, selected from those banks in each individual EU country that have the largest inter-national activities.¹⁸ This approach investigates the market shares of banks from each EU country in other EU countries. The analysis confirms the primarily regional focus of cross-border EU banks (Figure 4). Indeed, when the EU is broadly divided into six regions (Anglosaxen, AustroGerman, Benelux, Continental, Central Eastern European and Scandinavian), it becomes clear that the international activities of European banks are concentrated in their own region (the circles are largest on the Figure's diagonal). For instance, Figure 4 indicates that the reported Benelux banks' cross border activities are equivalent to about one fifth of the registered Benelux banking market. Off-diagonal activities are relatively small, except in Central Eastern Europe, which is in line with the earlier conclusion on the CEE countries' atypical foreign dominated banking systems.

Figure 4 Market shares of 46 major EU banking groups' cross-border activities in the EU (2005)

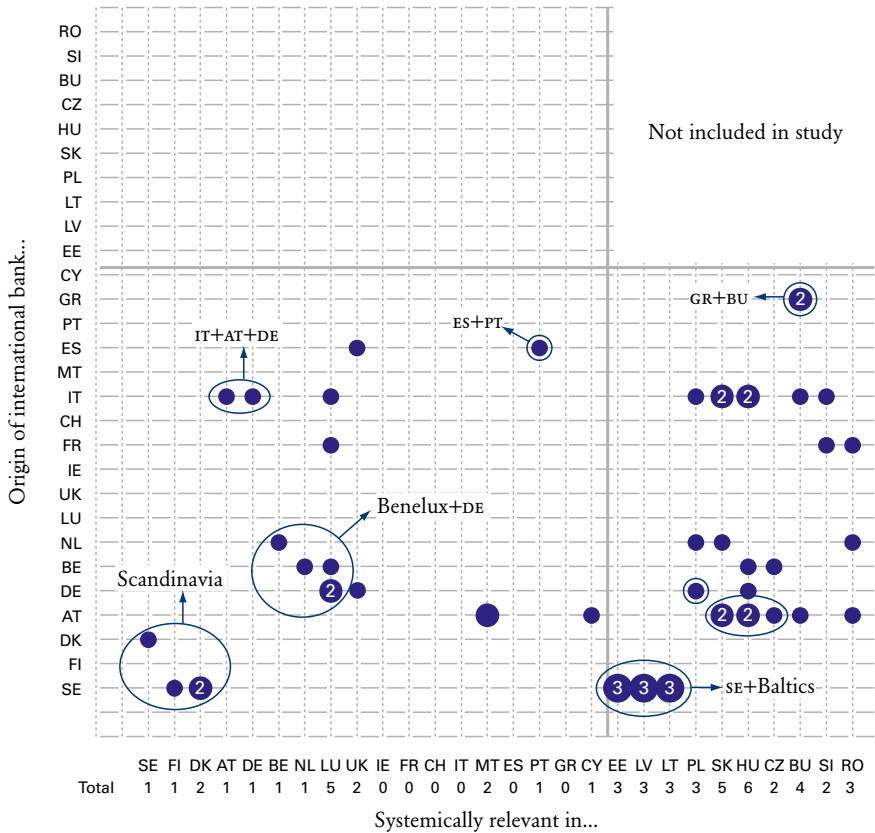


Note: The circles depict the market shares (in %) of the recorded banks' total cross-border activities. On the axes, 'Continent' refers to Cyprus, France, Greece, Italy, Malta, Portugal and Spain; 'Anglo' to Ireland and the United Kingdom; 'AT+GER' to Austria and Germany; 'Benelux' to Belgium, the Netherlands and Luxembourg; 'Scan' to Denmark, Finland and Sweden; and 'CEE' to Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Source: Own calculations.

As indicated earlier, besides looking at cross-border issues from the viewpoint of the banking group, one can also take the perspective of the host country and especially its interest in securing its own financial stability. Here, the issue is not whether a bank has substantive interests outside its home country, but whether its activities are vital to the host country. To the extent this is the case, notably when the bank is of systemic importance to the host, the incentives of cross-border supervision may be skewed, as a branch or subsidiary may be crucial to the host but close to irrelevant to the home supervisor. The more lopsided the incentives, the stronger is the case for a neutral, pan-EU supervisor. Following the definition in the EU Financial Conglomerates Directive, a bank may be classified as being systemically important in a given country if it has a market share larger than 5%. On this basis, Figure 5 plots the origin and dispersion of systemic banks in the EU.

Both the bottom line and bottom left panel show that Western European countries host an average of only one systemic foreign bank in their financial sector.¹⁹ This illustrates the still limited systemic cross-border banking interlinkages. In addition, most foreign banks that are systemically relevant to a given country come from a neighbouring country, signalling a more regional than pan-European orientation. For instance, the Scandinavian group only hosts systemically important foreign banks from Denmark and Sweden; the Benelux predominantly hosts systemically important banks from the Benelux and Germany; while Italian banks are systemically important to their German and Austrian neighbours and Swedish banks to their Baltic neighbours. These aspects again show the still low level of cross-

Figure 5 Systemically important (>5% market share) foreign banks in Europe, 2005



Note: This Figure indicates the number and origin of systemic foreign banks in each EU country and Switzerland (the total number is shown at the bottom). For example, there are two systemic foreign banks in Denmark and in both cases Sweden is the home country. Data on market shares of CEE banks in other CEE countries were not available but are considered to be negligible, given the small size of CEE banks. Regional concentrations have been encircled. Own calculations.

border banking inter-linkages in the EU as well as their predominantly regional character. By implication, any cross-border externalities related to these banks or their supervision will in first instance be regional too. Given tighter regional interdependence, part of these externalities may actually be internalised.

However, there is one notable exception to this regularity: Central Eastern Europe (CEE). As Figure 5 shows, these countries harbour a significantly larger number of systemically important banks from outside their region (with an average of 3.4 systemic foreign banks per country).²⁰ At the same time, the activities in these

countries are relatively unimportant to the banks themselves. In fact, all these 46 banks' activities in the CEE-countries amounted to less than 3% of their aggregate balance sheet, or about one third their minimum regulatory capital. The conundrum is evident: the failure of a foreign subsidiary or branch would disrupt the financial system in the host country, but would have no more than a marginal impact on the bank and the financial system in the home country.

In all, the empirical analysis indicates that: (i) EU banks are still primarily nationally oriented; (ii) their cross-border activities are roughly as often global as European; (iii) their European activities are not pan-European but regionally clustered; and (iv) Central Eastern European banking systems are dominated by foreign EU banks and thus form an exception.

5 Supervisory implications: the need for a tailor-made set-up

The empirical findings on the structure of the EU banking market have implications for supervision. In particular, the fact that EU banks still have a predominantly national orientation implies that domestic supervision still forms the core of banking supervision. The fact that the international activities of the major EU banks are as often global as they are European further implies that a predominantly European approach to cross-border supervision would address only part of the potential cross-border externalities. And the regional focus implies that the supervisory issues raised by banks' cross border activities are not pan-European. In a nutshell, the European banking landscape has diverse regional, rather than common pan-European interests. This weakens the case for pan-European supervision.

Indeed, given that the regional banking concentrations show very little overlap in the EU and that home banks are widely dispersed, the groups of authorities directly involved in the supervision of the various cross-border institutions differ strongly in composition. Given the still fragmented nature of the EU banking sector, decision-making within any EU wide system of financial supervisors would tend to comprise a large number of non-involved parties which would greatly reduce the efficacy of the supervisory process. Put differently, is it sensible or economically efficient to include supervisory authorities from all over Europe in decision-making on an institution that is only significantly active in a few countries? Is it desirable to institutionalise a pan-European solution to resolve a problem that only occurs in a minority of countries, that is linked to a very small share of EU financial assets and that can be addressed by other means? In this context it may be argued that the fragmentation of Europe's banking market is a consequence of the supervisory structure and that you have to change the latter to change the former. But this puts the horse behind the cart: supervision would evolve ahead of the market.

Proposals for a pan-European Financial Authority or a European System of Financial Supervisors often draw their inspiration from the integration of monetary policy in the European System of Central Banks. But the integration of supervision at the EU-level is in many ways much more complex than the integration of monetary policy under EMU. This is because supervisory policies do not have an unequivocal objective (comparable with price stability for monetary policy), rely on more diverse instruments (cf. the short-term interest rate), have a more divergent local

impact and thus also represent more diverse national interests. Moreover, supervision is essentially a local activity: it is conducted close to the supervised institution.

Rather, the current fragmented structure of the European banking sector suggests following a tailor-made approach that allows the supervisory set-up to be moulded to the specific circumstances of individual institutions. This would promote efficient and effective supervision: by only involving those European countries in which a bank actually employs substantial activities, the number of parties around the table will be limited and co-ordination processes will be streamlined. Such a pragmatic, tailor-made set-up could be accommodated within the consolidated supervision model.

A key challenge for a tailor-made set-up on the basis of consolidated supervision is how to ensure adequate representation of host country interests in the supervisory process over systemically relevant banks of foreign origin. This is crucial to internalise cross-border externalities, especially in Central Eastern European countries that have foreign dominated banking markets.²¹ A key arrangement to advance the interests of host countries is the creation of ‘Colleges of Supervisors’, in which all countries with substantive interests in an institution are represented. This would not only include supervisors of countries with substantive subsidiaries, but also those with significant branches. Indeed, including non-EU countries would seem necessary to do justice to the international character of the European banking sector. Such colleges may serve to share information, align supervisory efforts and, if needed, co-ordinate stability measures in times of financial strain.²²

In particular, by providing knowledge of local considerations and market conditions, these colleges can improve overall supervisory decision-making. Via the delegation of tasks and possibly of well-defined responsibilities, colleges can also contribute to a more efficient division of labour between the consolidating and sub-consolidating supervisors. For instance, the execution of local inspections is likely to be better delegated to local host supervisors (CEBS, 2007).

Although these colleges do not have ultimate decision-making powers, they contribute to mutual understanding and serve to underpin commitments to reach agreement. Only in the unlikely event a college can not reach agreement does the consolidating supervisor (and Chair of the College) have the final say. In addition, a formal mediation mechanism could give sub-consolidated supervisors a way to appeal collective decision-making.

Experience with such colleges is scarce as yet, but provides a promising basis for expansion. Besides this, progress can be made by making consolidating supervision more incentive compatible, in the sense that the consolidating supervisor itself gets *ex ante* incentives to supervise a bank’s foreign operations adequately. This may for instance be achieved by combining the consolidating supervisor’s decision-making powers with financial responsibility and accountability for part of a bank’s deposit insurance in the host country.

Irrespective of any changes to the institutional structure of financial supervision in the EU, there are issues in supervisory policy that need to be urgently addressed in response to the growth in cross-border banking activity. These relate, first, to convergence of supervisory regulations and practices. Only by reducing differences in supervisory toolkits and manuals and by promoting a fully shared understanding within the EU on the basic tenets of supervisory policy will convergence towards a common EU supervisory culture become feasible (Decressin et al., 2007). Community-wide standard setting via regulations instead of directives will foster harmonisation. In addition, national options and discretions should be phased out, while disclosure requirements and monitoring of national transposition procedures should be stepped up. Supervisory reporting requirements need to be effectively harmonised. In terms of process, the EU banking supervisors committee, CEBS, should be more closely involved in designing Level 2 legislation and promoting convergence towards best practices, with clear deliverables and timelines. Regulatory convergence should be made central to CEBS' mandate, while its guidelines on Colleges of Supervisors, delegation of tasks and responsibilities, and mediation mechanisms should be fleshed out and implemented. Moreover, arrangements for financial crisis management need to dovetail supervisory arrangements. In this context, common principles are needed on information sharing as well as effective arrangements for capital transferability both running up to and during a crisis, in line with the aim to minimise the overall cost of a crisis to the European economy (Speyer and Walter, 2007). While mechanical burden sharing formulae are impracticable on account of the unique and unpredictable nature of financial crises, further analytical work can give guidance to Member States' in their commitment "to arriving at an equitable burden sharing based on net fiscal expenditures" (EFC, 2007). Finally, deposit insurance schemes in the EU vary widely and thus present a potential source of instability, particularly in times of financial stress.²³ As cross-border banking activities grow, harmonisation of these schemes becomes increasingly important.

6 Conclusions

A prime determinant of the optimal set-up for banking supervision in Europe is how its banks are actually organised, particularly in a cross-border context. When the structure of supervision is well-aligned with that of the sector, the competitive playing field is fair and supervisory issues are resolved in the best interests of (and at the lowest costs to) European citizens. Against this background, this paper analyses the structure of banking in the EU. Four findings stand out. First, although they are opening up, banks from EU countries are still primarily nationally oriented. Second, while on the rise, the number of truly internationally oriented banks is very small and these are roughly as often global as they are European. Third, as yet, there are no banks with a pan-European presence. Rather, cross-border activities are regionally clustered and there is hardly any overlap between banks. Thus, systemic links are generally small in number and limited to varying compositions of neighbouring countries. Fourth, Central Eastern European countries form a notable exception to these broad findings, as they mostly have banking systems dominated by foreign institutions.

This currently fragmented and diverse banking structure cautions against moving to a pan-European Financial Authority or a European System of Financial Supervisors, as this would imply an additional supervisory layer and a broad involvement of different supervisory authorities, at the likely expense of supervisory efficacy and efficiency. Moreover, the case for supervisory integration is much weaker than it was for monetary integration: there is no clear-cut EU wide supervisory objective, no unambiguous supervisory instrument, no union wide policy transmission and no supranational financing mechanism to absorb the possible costs of a bank bail out. Rather, the diverse European banking structure suggests pursuing a tailor-made set-up along the lines of the consolidated supervisory model. Such a set-up builds forth on the current practices and respects the subsidiarity principle, while also constituting an important step forward in the integration of supervision.

On the assumption the EU banking structure develops in an EU-wide direction, the consolidated supervisory model provides a supportive intermediate step in the direction of a pan-European supervisory authority over the longer term. For the consolidated supervisory approach to work and also be widely accepted, especially in Central Eastern Europe, mechanisms need to be developed to ensure adequate representation of host country interests. In particular, a key role may be assigned to colleges of supervisors in which information is openly shared, supervisory work is

synchronized and stability measures are co-ordinated. While fostering a mutual build-up of trust amongst supervisory authorities, practical experience with such colleges will provide guidance on how supervisory responsibilities can best be shared and organised. Besides this, progress is urgently needed on harmonising supervisory regulations and standards, including by phasing out national discretions, on converging national deposit guarantee schemes, on ensuring capital transferability in periods of financial stress, on developing equitable burden sharing mechanisms and on bolstering other crisis management instruments.

References

- Arnold, I.** (2007), Financial stability in the Eurozone: where do we stand?, *Journal of Financial Transformation*, Capco Institute.
- Basel Committee on Banking Supervision** (1996), *The Supervision of Cross-Border Banking*, Basel.
- Berger, A.N., R. DeYoung, H. Genay and G.F. Udell** (2003), Efficiency Barriers to the Consolidation of the European Financial Services Industry, *European Financial Management* 7, pp. 117–130.
- Berglöf, E., P. Fulghieri, J. Gual, C. Mayer, and P. Barros** (2005), *Integration of European Banking - The Way Forward*, CEPR.
- Bini Smaghi, L.** (2007), Banking consolidation, innovation and access to credit, *Speech CESIFIN*, Florence.
- Bollard, A.** (2005), Being a responsible host: supervising foreign-owned banks, Evanoff D. and G. Kaufman (eds.), *Systemic Financial Crises: Resolving Large Bank Insolvencies*, New Jersey: World Scientific Publishing Company, pp. 3-16.
- Boot, A.W.A.** (2006), Supervisory arrangements, LOLR and crisis management in a single European banking market, *Economic Review* 2, Sveriges Riksbank.
- Breuer, R.** (2000), Convergence of Supervisory Practices – A Banker’s View, *Conference of European Banking Supervisors*, Copenhagen.
- Cerutti, E., G. Dell’Ariccia and M. Peria** (2007), How banks go abroad: branches or subsidiaries?, *Journal of Banking & Finance* 31, pp. 1669-1692.
- Claessens, S.** (2006), Competitive Implications of Cross-Border Banking, *World Bank Policy Research Working Paper 3854*, Washington DC.
- Coupey-Soubeyran, J. and T. Sessin** (2001), Pour une autorité de supervision financière européenne, *Revue d’économie financière* 60, pp. 143-160.
- Decressin, J., H. Faruqee and W. Fonteyne** (2007), *Integrating Europe’s Financial Markets*, International Monetary Fund, Washington DC.
- De Haas, R.T.A. and I.P.P van Lelyveld** (2004), Foreign Bank Penetration and Private Sector Credit in Central and Eastern Europe, *Journal of Emerging Market Finance* 3, pp. 125–151.
- De Nederlandsche Bank** (2007), Experiences with the Twin Peaks Model, *Quarterly Bulletin* June, pp. 47-52.
- Economic and Financial Committee** (2006), *Financial stability arrangements in the EU: priorities and next steps up to 2008*, Brussels.
- Economic and Financial Committee** (2002), *Final Report on Financial Regulation, Supervision and Stability*, Brussels.
- Eichengreen, B. and Y.C. Park** (2003), Why has there been less financial integration in Asia than in Europe?, *Institute of European Studies: Political Economy of International Finance Working Paper*, No. 4, Brussels.
- Eisenbeis, R.A. and G.G. Kaufman** (2006), Cross-Border Banking: Challenges for Deposit Insurance and Financial Stability in the European Union, *Federal Reserve Bank of Atlanta Working Paper*, Atlanta.

European Central Bank (2007, 2006, 2005), *EU Banking Structures*, Frankfurt.

European Central Bank (2006), *Indicators of financial integration in the euro area*, Frankfurt.

European Central Bank (May, 2005), Consolidation and Diversification in the Euro Area Banking Sector, *Monthly Bulletin*, Frankfurt.

European Commission (2005), *White Paper on Financial Services Policy 2005-2010*, Brussels.

European Commission (2005), *Financial Integration Monitor 2005*, Brussels.

European Commission (2005a), Addendum to the background document for the Financial Integration Monitor 2005, *Working Paper*, Brussels.

European Commission (2005b), Cross-border consolidation in the EU financial sector, *Working Paper*, Brussels.

European Commission (2001), Report on Financial Crisis Management, *Economic Papers* 156, Brussels.

European Financial Services Round Table (2007), Monitoring progress in EU prudential supervision, *Recommendations of the EFR*, Brussels.

European Financial Services Round Table (2005), On the Lead Supervisor Model and the Future of Financial Supervision in the EU, *Recommendations of the EFR*, Brussels.

European Financial Services Round Table (2004), Towards a Lead Supervisor for Cross Border Financial Institutions in the European Union, *Recommendations of the EFR*, Brussels.

European Financial Services Round Table (2003), Harmonisation of Regulation and Supervision of the European Financial Sector, *Recommendations of the EFR*, Brussels.

Financial Services Committee (2006), *Report on Financial Supervision (Thierry Françoq Report II)*, Brussels.

Financial Services Committee (2005), *Report on Financial Supervision (Thierry Françoq Report I)*, Brussels.

Flannery, M. (2003), Modernising Financial Regulation, *Journal of Financial Services Research* 16.

Fratzsch, M. (2002), Financial Market Integration in Europe: on the effects of EMU on stock markets, *International Journal of Finance and Economics* 7, pp. 165–193.

Goodhart, C. and D. Schoenmaker (2006), Burden sharing in a banking crisis in Europe, *Economic Review* 2, Sveriges Riksbank.

International Monetary Fund (2007), *Global Financial Stability Report: Market Developments and Issues*, Washington DC.

Kuritzkes, A., T. Schuermann and S. Weiner (2003), Risk measurement, risk management, and capital adequacy in financial conglomerates, in: R. Herring and R. Litan (eds), *Brookings-Wharton papers on Financial Services*, Washington DC.

Markowski, K. (2003), Implementation of the EU Banking Prudential Standards in Poland: State of the Art and Challenges, *Presentation given at the ZEW/AEI Conference on Regulation and Supervision of Financial Markets and Institutions in the EU*, July.

- Mayes, D.** (forthcoming), Responsibility without power: Nordic and Antipodean solutions to the problem of foreign-owned systemic bank branches, *Journal of Banking Regulation*.
- McCarthy, C.** (2004), How should international financial services be regulated?, *Gresham Lecture*, 22 September.
- Moshirian, F.** (2006), Aspects of International Financial Services, *Journal of Banking & Finance* 30, pp. 1057-1064.
- Nijssse, P.** (2006), A Road Map towards a European Financial Supervisory System, *SUERF seminar*, Malta.
- Padoa-Schioppa, T.** (2004), *How to deal with emerging pan-European financial institutions*.
- Pearson, P.** (2003), Comment, in: J. Kremers, D. Schoenmaker and P. Wierts (eds.), *Financial Supervision in Europe*, Cheltenham UK: Edward Elgar.
- Reserve Bank of New Zealand** (2004), Statement of principles: Bank registration and supervision, available at <http://www.rbnz.govt.nz/finstab/banking/regulation/bsl.pdf>.
- Schoenmaker, D. and C. van Laecke** (2007), Determinants of International Banking: Evidence from the World's Largest Banks, *mimeo*.
- Schoenmaker, D. and C. van Laecke** (2006), Current State of Cross-Border Banking, *Federal Reserve Bank of Chicago Conference on financial instability: Cross-border banking and financial regulation*.
- Schüler, M.** (2003), Incentive Problems in Banking Supervision – The European Case, *ZEW Discussion Paper*, 03–61.
- Slager, A.** (2006), The Internationalization of banks, *Palgrave Macmillan studies in Banking and Financial Institutions*, Hampshire.
- Slager, A.** (2004), *Banking Across Borders*, Rotterdam.
- Speyer, B. and N. Walter** (2007), Towards a new structure for EU financial supervision, *Deutsche Bank Research* November, Frankfurt.
- Speyer, B.** (2001), Internationalisation of Banking and Banking Supervision, *Deutsche Bank Research Notes*, 01-7.
- Sullivan, D.** (1994), Measuring the Degree of Internationalisation of a Firm, *Journal of International Business Studies* 25, pp. 325–342.
- Thygesen, N.** (2003), Comments on The Political Economy of Financial Harmonisation in Europe, in: Kremers, J., D. Schoenmaker and P. Wierts (eds), *Financial supervision in Europe*, Cheltenham UK: Edward Elgar.
- Trichet, J-C.** (2007), Towards the review of the Lamfalussy approach: market developments, supervisory challenges and institutional arrangements, *Speech First CEBS Conference*, London.
- Trichet, J-C.** (2006), The process of European financial integration, *Mais Lecture*, Cass Business School, London.
- UNCTAD** (1995), *World Investment Report 1996: Transnational Corporations and Competitiveness*, New York and Geneva: United Nations.

Vives, X (2001), Restructuring Financial Regulation in the European Monetary Union, *Journal of Financial Services Research* 19, pp. 57–82.

Walkner, C. and J.P. Raes (2005), Integration and consolidation in EU banking - an unfinished business, *European economy economic papers* 226, European commission, Brussels.

Notes

- 1 Moshirian (2006) provides an overview of the literature on the internationalization of financial services.
- 2 Claessens (2006) summarizes the literature on the determinants of cross-border banking and banking integration. Kuritzkes, Schuermann and Weiner (2003) present evidence on the centralisation of risk-management and capital management by large financial institutions.
- 3 The First Banking Coordination Directive, the Single European Act of 1986 and the Second Banking Directive of 1989 created a single European banking market, albeit subject to constraints imposed by a bank's home-and host-country regulator.
- 4 Article 129 of the CRD defines specific rules for the authorisation of internal rating based models used by a credit institution in both the parent institution and its subsidiaries. It states that the 'competent authorities concerned shall work together, in full consultation, to decide whether or not to grant authorisation' and 'shall do everything within their power to reach a joint decision within six months'. If they are unable to agree during this timeframe, the consolidating supervisor (of the parent institution) has the final say. The resulting decision is then binding for all related host authorities in the Member States concerned.
- 5 To ensure a level playing field, foreign branches may be allowed to join the local deposit guarantee scheme to top up their deposit insurance to the level of the host country if the latter offers more favourable conditions.
- 6 Of course, with the advent of EMU, lender of last resort financing in the euro area of the EU no longer involves different currencies. Nonetheless, the lender of last resort role is still left to the national central banks as the ECB's role in financial stability is limited to 'contributing to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system' (Article 105(5), Treaty of Maastricht).
- 7 Cerutti, Dell'Ariccia and Peria (2007) find that banks seeking to penetrate host markets with large retail activities tend to do so through a subsidiary.
- 8 The institutional architecture of supervision within the EU is diverse. Although in many Member States the Central Bank is responsible for Macro-supervision (oversight and financial stability), the responsibility for Micro-supervision (prudential and conduct-of-business supervision) varies markedly. For instance, at the outset of 2007 ten EU member States had some form of integrated supervision within a Financial Supervisory Authority (e.g. UK, Germany), twelve others harboured multiple supervisory institutions (e.g. France, Italy, The

- Netherlands), and three Member States had fully integrated their supervision within the Central Bank (Ireland, Slovakia, and the Czech Republic). Nonetheless, a clear trend is visible towards integrated Micro-supervision: in less than five years (2002-2006) the number of Member States with only one supervisor has risen from 6 to 14. This trend reflects apparent advantages of integrated supervision over sectorally segmented supervisory regimes, such as promoting cross-sectoral consistency, reducing supervisory overlap and blind spots, reaping economies of scale and scope, increasing supervisory transparency for outsiders and strengthening accountability (DNB, 2007).
- 9 The term 'consolidated supervision' comes from the CRD; it overlaps substantially with the concept of 'lead supervision' coined by the EFR (2003).
 - 10 Basel II requires an increased level of co-operation and co-ordination between home and host supervisors, especially for complex internationally active banking groups. To foster this co-operation between supervisors the Basel Committee published High-level principles for cross-border supervision. Principle 3 states: 'Host country supervisors, particularly where banks operate in subsidiary form, have requirements that need to be understood and recognised.' In particular, information from the home supervisor is required if host supervisors are to have sufficient confidence that the consolidated supervision is consistent with the requirements and expectations of their jurisdiction.
 - 11 The 1996 BCBS paper on 'The supervision of cross-border banking' identifies three types of information the consolidating supervisor may provide to enable the host authority to verify effective supervision of its foreign institutions: (i) information specific to the local entity, (ii) more general information about the banking group, such as domestic regulatory requirements, and (iii) notification of material adverse changes in the global condition of the banking group.
 - 12 Figure 1 covers the EU-15 only; including the Central Eastern European countries as well as Cyprus and Malta (see figure 2) has a negligible effect on results. Domestic assets exclude loans to non-residents.
 - 13 The TNI is calculated as
$$i = \frac{1}{3} \cdot \left(\frac{\text{Assets}_i}{\text{Total assets}} \right) + \frac{1}{3} \cdot \left(\frac{\text{Income}_i}{\text{Total income}} \right) + \frac{1}{3} \cdot \left(\frac{\text{Employment}_i}{\text{Total employment}} \right)$$
where *i* refers to the location of the variable (either home, european or world). The three categories add up to 100%. Employment is relevant for the present discussion as it indicates operational complexity of supervising relevant institutions.
 - 14 Top 28 European banking groups selected on the basis of capital strength (Tier 1 capital). In contrast with Schoenmaker and van Laecke, Swiss banks have been excluded as Switzerland is not part of the EU.

15 Our conclusion is fairly robust: lowering our criterion for non-home based banks by one fifth (so that banks that employ 40% of their business abroad are already classified as non-home based) only adds three banks.

16 Note the subtle difference with Schoenmaker and Van Laecke (S&vL 2006): they define any bank which has $h \leq 0.5$ and $e \geq 0.25$ as a European bank, regardless of the size of activities employed in the rest of the world (w). By contrast, we take w into account, by classifying banks for which $h \leq 0.5$, $e \geq 0.25$ but $w \geq e$ not as European, but as global—for these banks, the global activities are larger than the non-home European activities.

17 The inferred conclusion on the regional focus of EU banks is fairly robust: if the threshold is lowered by one fifth to 0.8%, the overall average number of EU countries where these banks had substantial activities rises only marginally from 3.8 to 4.1 countries.

18 Data used has been collected by the ECB (2007) as well as by the EC (2005, 2006) and show the geographical distribution of balance sheet items and market shares for 46 of Europe's largest banking groups with a significant cross-border activity, ultimo 2005. Assets of these 46 banking groups have grown from €12 trillion in 2003 to €18.7 trillion at the end of 2005, and comprise about 65% of total EU banking-sector assets.

19 This conclusion is fairly robust. Lowering the threshold of systemic importance by one fifth to 4% hardly changes the overall picture: although Luxembourg has one more systemically relevant bank (of Belgian origin), nothing changes for any of the other countries.

20 This finding is also fairly robust. Lowering the threshold of systemic importance by one fifth to 4% adds one systemically important bank in Romania (of Greek origin), but leaves the outcome for all other countries unchanged.

21 To date, externality problems have been limited in central Europe. In particular, foreign banks did not retrench their claims during recent financial crises in these countries (De Haas and Lelyveld, 2004).

22 The literature gives four flavours of Colleges: (1) the Minimum EU model: the consolidated supervisor is responsible for and carries out all supervision work without any organised cooperation with sub-consolidating supervisors; (2) the Info-sharing model: the consolidating supervisor has the main responsibility for supervision, but sub-consolidating supervisors have access to all information at the level of the group; (3) the Consulting model: consolidating and sub-consolidating supervisors agree on the allocation of tasks and responsibilities; and (4) the Co-decision model: all supervisors involved have equal status in supervision work.

23 In the EU, there is currently only a mandatory minimum deposit insurance of EUR 20,000. EU countries

differ in the cover they provide above this minimum, in the extent to which the guarantee includes an own risk, and in the financing and time frame of reimbursements. Eisenbeis and Kaufman (2006) present an overview of deposit insurance in EU countries.

Publications in this series as from January 2003

- Vol.1/No.1 (2003) Requirements for successful currency regimes:
The Dutch and Thai experiences
*Robert-Paul Berben, Jan Marc Berk, Ekniti Nitihanprapas,
Kanit Sangsuphan, Pisit Puapan and Piyaporn Sodsriwiboon*
- Vol.1/No.2 (2003) The blurring of distinctions between financial sectors:
fact or fiction?
Annemarie van der Zwet
- Vol.1/No.3 (2003) Intermediation, integration and internationalisation:
a survey on banking in Europe
Jaap Bikker and Sandra Wesseling
- Vol.1/No.4 (2003) A Survey of Institutional Frameworks for Financial Stability
Sander Oosterloo and Jakob de Haan
- Vol.2/No.1 (2004) Towards a framework for financial stability
Aerdt Houben, Jan Kakes and Garry Schinasi
- Vol.2/No.2 (2004) Depositor and investor protection in the Netherlands:
past, present and future
Gillian Garcia and Henriëtte Prast
- Vol.3/No.1 (2005) Arbeidsparticipatie van ouderen:
Microfinanciële motivaties en beleidsaspecten
W. Allard Bruinshoofd en Sybille G. Grob
- Vol.3/No.2 (2005) Payments are no free lunch
Hans Brits and Carlo Winder
- Vol.4/No.1 (2006) EUROMON: the multi-country model of De Nederlandsche
Bank
Maria Demertzis, Peter van Els, Sybille Grob and Marga Peeters
- Vol.4/No.2 (2006) An international scorecard for measuring bank performance:
The case of Dutch Banks
J.W.B. Bos, J. Draulans, D. van den Kommer and B.A. Verhoef

- Vol.4/No.3 (2006) How fair are fair values?
A comparison for cross-listed financial companies
Marian Berden and Franka Liedorp
- Vol.4/No.4 (2006) Monetary policy strategies and credibility – theory and practice
Bryan Chapple
- Vol.4/No.5 (2006) China in 2006: An economist's view
Philipp Maier
- Vol.4/No.6 (2006) De houdbaarheid van het Nederlandse pensioenstelsel
Jan Kakes en Dirk Broeders
- Vol.5/No.1 (2007) Microfinanciering, deposito's en toezicht: de wereld is groot,
denk klein!
Ronald Bosman en Iskander Schrijvers
- Vol.5/No.2 (2007) Public feed back for better banknote design 2
Hans de Heij
- Vol.6/No.1 (2008) Towards a European payments market: survey results on
cross-border payment behaviour of Dutch consumers
Nicole Jonker and Anneke Kosse
- Vol.6/No.2 (2008) Confidence and trust: empirical investigations for the
Netherlands and the financial sector
Robert Mosch and Henriëtte Prast
- Vol.6/No.3 (2008) Islamitisch financieren en toezicht: Een verkennende analyse
Bastiaan Verhoef, Somia Azahaf en Werner Bijkerk
- Vol.6/No.4 (2008) The Supervision of Banks in Europe:
The Case for a Tailor-made Set-up
Aerdt Houben, Iskander Schrijvers and Tim Willems

