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The governance and ownership of significant euro-area banks

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Executive summary

THE BANKING CRISIS in the euro area, which started in mid-2007 and has yet to be fully resolved, has sparked considerable debate and reform, most notably the initiation of banking union starting in mid-2012. But one issue that has been largely overlooked in the debate is the peculiar ownership and governance structures of euro-area banks. European policymakers and analysts often appear to assume that most banks are publicly listed companies with ownership scattered among many institutional investors ('dispersed ownership'), a structure in which no single shareholder has a controlling influence and that allows for considerable flexibility to raise capital when needed ('capital flexibility'). Such an ownership structure is indeed prevalent among banks in countries such as Australia, Canada, the United Kingdom and the United States.

THIS POLICY CONTRIBUTION shows, however, that listed banks with dispersed ownership are the exception rather than the rule among the euro area's significant banks , especially if one looks beyond the very largest banking groups. The bulk of these significant banks are government-owned or cooperatives, or uniquely influenced by one or several large shareholders, or otherwise prone to direct political influence.

AS A RESULT, the public transparency of many banks is low, with correspondingly low market discipline; they have weak incentives to prioritise profitability; their ability to shore up their balance sheets through either retained earnings or external capital raising is limited, resulting in insufficient capital flexibility; they tend to take unnecessary risks because of political interference; and their links with governments perpetuate the vicious circle between banks and sovereigns, which has been a key driver of the euro-area crisis.

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The euro area's significant banks

The new framework of European banking supervision, also known as the Single Supervisory Mechanism, established the European Central Bank (ECB) as the licensing authority for all banks in the euro area as of 4 November 2014. As a result, and despite many lingering national idiosyncrasies (ECB, 2016a), the euro area can now be considered a single jurisdiction for banking sector policy.

European banking supervision distinguishes between banks labelled significant, known as 'significant institutions' (SIs), and all other banks in the euro area, known as 'less significant institutions' (LSIs). SIs include all euro area-headquartered banking groups, and euro-area branches and subsidiaries of groups headquartered elsewhere, that have at least €30 billion in total assets, and others that have specific significance in their respective member states or because of their international interconnectedness. The ECB directly supervises SIs, while LSIs are supervised by national authorities under the ECB's 'supervisory oversight'. The ECB regularly updates a list of all supervised entities, including SIs and LSIs. This Policy Contribution is based on the list as of 15 November 2016 (ECB, 2016c).

Table 1: Euro-area banks

Category	Number of banks	Assets	
		€ billions	% of euro area total
Euro-SIs	97	22,118	79.9
G-SIBs	8	10,865	39.2
Other euro-SIs	89	11,253	40.6
Significant subsidiaries/branches	29	965	3.5
Owned by euro-SIs	4	79	0.3
Owned by third-country groups	25	886	3.2
Total SIs	122	23,004	83.0
LSIs	3,168	4,695	17.0
Total	3,290	27,699	100.0

Source: Bruegel based on ECB (2016b) and Schoenmaker and Véron (2016). Note: Assets are as of end-2015; the total for SIs is adjusted to avoid double-counting of significant subsidiaries owned by euro-SIs in Slovakia and Portugal. SIs = significant institutions; G-SIBs = global systemically important banks; LSIs = less significant institutions.

The euro area has 126 SIs (122 after eliminating double counting, see below), of which 97 are euro area-headquartered banking groups (hereafter referred to as 'euro-SIs') and 29 are subsidiaries of other banking groups. Among the latter, four are owned by other euro-SIs but still listed separately by the ECB[1], and the other 25 are owned by groups headquartered outside the euro area[2]. Another distinction is between euro-SIs that the Financial Stability Board (FSB) lists as 'global systemically important banks' or G-SIBs, and all others. As of the latest yearly update of the FSB's list (FSB, 2016), eight of the 97 euro-SIs are labelled G-SIBs.

Data on each SI's assets are as of end-2015 from Schoenmaker and Véron (2016), with three adjustments to account for recent transactions[3]. The total adds up to €23 trillion as shown in Table 1; the table also shows the relative importance of LSIs compared to SIs in the

1 These are Portugal's BPI, in the process of being taken over by Spain's CaixaBank but still listed separately at the time of observation, and three Slovakian banks owned, respectively, by Italy's Intesa Sanpaolo and Austria's Erste Bank and Raiffeisen Bank International.

2 The parent groups are headquartered in Sweden (9 cases), the United Kingdom (6), the United States (4), Russia (2), Denmark (1), Norway (1), Switzerland (1) and Venezuela (1).

3 Namely, the acquisition of WGZ Bank by DZ Bank in Germany; that of BPI by CaixaBank; and the merger of Banca Popolare di Milano and Banco Popolare to form Banco BPM in Italy.

euro-area system[4]. Table 1 illustrates the dominance of SIs[5] and that euro-SI assets are almost equally divided between the eight G-SIBs and the 89 other euro-SIs.

Ownership and governance patterns

Information on the ownership and governance structure of each euro-SI is publicly available. It is compulsory for listed company shareholders to report when they cross certain thresholds of ownership. Information about significant shareholdings in listed banks is therefore generally available and reliable[6]. For unlisted banks, relevant information is generally available from corporate sources, such as company websites and annual reports, and, if not, from press reports. Using all these sources, the largest shareholders were identified for almost all banks in the sample, except for a handful of cooperative or family-owned groups for which only the broad outlines of ownership structures could be identified.

To summarise the results, euro-area banks fall into six broad governance arrangements[7]:

- 'Dispersed' governance: groups whose parent entities are publicly listed and in which no individual shareholder holds sufficient influence to unilaterally alter the bank's direction and strategy[8].
- 'Minority influence': groups in which no single shareholder has majority control but one or several minority shareholders have significant leverage over the bank's direction and strategy. This category covers a variety of situations and includes both publicly listed groups and unlisted groups whose ownership is shared among several minority shareholders. Depending on the case, the influential minority shareholder(s) is from the private sector, the public sector or a not-for-profit entity.
- 'Private control': groups in which one private-sector shareholder owns more than 50 percent of the shares and thus has dominant control over the bank's direction and strategy. The identity of the controlling shareholder varies between cases, which include individuals, families, foundations, investment funds and insurance or industrial groups.
- 'Cooperative' governance: banks whose shareholder capital (or a majority thereof) is technically owned by their customers, or by a subset thereof. This category in turn covers diverse arrangements, with various patterns of centralisation and intermediate structures between the customers and the group-level entity. Unlike in the United States, where credit unions tend to be small, cooperative banks in the euro area can be very large (two

4 Data on total assets of LSIs is from ECB (2016b, Table 7), with minor adjustments to account for the aforementioned mergers and acquisitions and for slight changes of classification between January and November 2016. In that period, State Street Luxembourg and RBS Netherlands lost their SI designation, while Citibank Holdings Ireland became an SI. The total SI assets shown in Table 1 differ from the total shown in ECB's above-mentioned table, presumably because of slight differences in accounting conventions. (Regrettably, the ECB doesn't publish the bank-level asset figures that form the basis for its aggregates, neither for SIs nor for LSIs).

5 ECB (2017, Table 4) suggests that this dominance may be eroding, with total assets of LSIs as of end-2016 representing 20 percent of the system's total, compared with 17 percent as of end-2015. This increase in LSI share, however, might be partly due to changes in the ECB's measurement policies or to data quality issues.

6 Information on shareholdings in publicly listed banks presented in this Policy Contribution was retrieved from www.4-traders.com, consulted between 25 March and 2 April 2017.

7 This analysis refines and expands on Table 4 in Schoenmaker and Véron (2016).

8 This category also includes the listed Italian 'popular banks' that are among the euro-SIs. Following a recent reform, most of these comply with the principle of 'one share one vote', the only exception being Banca Popolare di Sondrio. See Valentina Za, 'Pop Sondrio says court halts transformation into joint-stock Co', *Reuters*, 16 December 2016.

of the eight euro area G-SIBs are cooperatives)[9].

- 'Public sector' governance: banks created by (local or national) governments and/or that fulfill a public interest, non-commercial objective. These include national policy banks in some member states, dedicated to funding local government activities (eg Finland's Kuntarahoitus, France's SFIL or the Netherlands' BNG Bank), international development (France's AFD), or small businesses and innovation (bpiFrance), as well as Germany's elaborate network of local savings banks (*Sparkassen*) and regional banks (*Landesbanken*) and other public banks such as La Banque Postale in France or Caixa Geral de Depósitos in Portugal.
- 'Nationalised' governance: banks that are currently under government control after being rescued during the financial crisis. In most cases, and unlike public-sector banks, governments plan to privatise them or (in the case of Dexia) wind them up, sometimes under explicit conditions imposed by the European Commission's Directorate-General for Competition for banks that received state aid.

These six categories allow for a more refined understanding of banking structures than the familiar distinction between listed and unlisted banks. Several categories straddle the listed/unlisted divide. Specifically, all public-sector and privately controlled banks are unlisted, and by definition all 'dispersed' banks are listed; but the other categories include listed and unlisted groups. For example, Crédit Agricole has a cooperative governance structure based on 39 regional cooperative banks, but the parent entity, Crédit Agricole SA, is a listed company, whose dominant shareholder (with a 75 percent stake) is a corporate entity jointly owned by the 39 regional banks. Similarly, some nationalised banks are fully owned by their respective national governments, eg Belgium's Belfius or Portugal's Novo Banco[10], but others are publicly listed with the government as a majority shareholder, eg the Netherlands' ABN AMRO or Spain's Bankia.

The allocation of each bank to one of these categories is fairly unambiguous, except at the margin between the 'dispersed' and 'minority influence' categories, where no obvious threshold exists. As a rule of thumb, banks where no single entity holds more than 10 percent of shares have been labelled 'dispersed', except in cases where several significant shareholders (including at least one with shares above 8 percent) are likely to act in concert[11]. Conversely, BNP Paribas has been classified as 'dispersed' even though the Belgian government holds 10.2 percent of the shares, because of the latter's commitment to act as an arm's-length shareholder.

Banks in the 'dispersed' category might also be subject to more subtle forms of control. A growing literature suggests that passive index funds[12] that hold significant ownership stakes in several listed companies in the same sector might reduce competition among those companies (eg Levine 2015; Anton *et al*, 2016; Azar, Schmalz and Tecu, 2017; Gramlich and Grundl, 2017; Novick, 2017; Posner, Scott Morton and Weyl, 2017; Rock and Rubinfeld, 2017). Investors such as BlackRock, Capital Group, Norges Bank Investment Management (NBIM), State Street global Advisers (SSgA) and Vanguard have stakes of a few percent each in many listed banks with dispersed ownership in both the euro area and the United States, as partly documented in appendices A and B. The debate about the possible impact of such ownership patterns on company behaviour is ongoing and might be relevant for banks in the 'dispersed'

9 These are BPCE and Crédit Agricole, both headquartered in France. The other euro area-based G-SIBs are BNP Paribas, Deutsche Bank, ING, Santander, Société Générale and UniCredit (FSB, 2016).

10 At the time of observation, the Portuguese government was in the process of selling Novo Banco.

11 The three such cases are Intesa Sanpaolo (where three regional foundations hold a total of 17.5 percent of shares), Bank of Cyprus and Mediobanca, for which a publicly disclosed shareholders' agreement covers 31 percent of total shares.

12 These are funds that invest in all stocks that participate in the composition of a given index, as opposed to 'active' funds that select individual stocks for their expected performance.

category, even though the analysis presented here is agnostic about it.

Appendix A presents findings on each euro-SI. Table 2 summarises the findings in terms of governance categories. It also indicates the split between listed and unlisted groups. Fewer than half (42.3 percent) of euro-SIs are listed, and fewer than half the listed euro-SIs (15.5 percent) have dispersed ownership. Unsurprisingly, listed banks with dispersed ownership tend to be larger, but even so, they represent less than half (44 percent) of all euro-SI assets[13].

Table 3 breaks down these categories by the eight G-SIBs and 89 other euro-SIs. Among other euro-SIs, the shares of each governance category in the number of banks and assets are broadly similar, implying that, once G-SIBs are excluded, the distribution between governance categories is not strongly correlated to size (except for privately controlled banks, which tend to be significantly smaller than average).

Table 2: Governance structures of euro-SIs

Governance structure	Number of banks	Percent of banks	Assets	
			€ billions	% of total assets
Dispersed	15	15.5	9,723	44.0
Minority influence	22	22.7	2,988	13.5
Private control	14	14.4	572	2.6
Cooperative	15	15.5	5,351	24.2
Public sector	21	21.6	2,172	9.8
Nationalised	10	10.3	1,312	5.9
Total	97	100	22,118	100
Publicly listed	41	42.3	15,229	68.9
Unlisted	56	57.7	6,889	31.1
Total	97	100.0	22,118	100.0

Source: Bruegel based on Appendix A. Assets are as of end-2015. Note: SIs = significant institutions.

Table 3: Governance structures of euro area G-SIBs and other euro-SIs (percent)

Governance structure	Share of G-SIBs		Share of other euro-SIs	
	By number of banks	By assets	By number of banks	By assets
Dispersed	75.0	73.6	10.1	15.3
Minority influence	-	-	24.7	26.6
Private control	-	-	15.7	5.1
Cooperative	25.0	26.4	14.6	22.1
Public sector	-	-	23.6	19.3
Nationalised	-	-	11.2	11.7
Total	100.0	100.0	100.0	100.0

Source: Bruegel based on Appendix A. Assets are as of end-2015. Note: SIs = significant institutions; G-SIBs = global systemically important banks.

If anything, data shown in Tables 2 and 3 underestimates the influence of governments in the euro-area banking sector. Beyond the 'public sector' and 'nationalised' categories, nine banks representing €3,055 billion in assets have a government as their single largest minority

13 It can safely be estimated that this share would be even lower if LSIs were included. Unfortunately, the ECB does not publish bank-level information on LSI assets, making it prohibitively onerous to extend the analysis presented here to LSIs.

shareholder[14]. An additional eight banks, representing €1,597 billion in assets, have as their largest (minority or majority) shareholder a regional or national foundation, which is typically controlled or influenced by political interests (all of them are in only three countries: Austria, Italy and Spain)[15]. Taking into account the fact that cooperative bank governance models are also often politicised, one can reasonably presume that there is some political interference in the governance of at least 64 percent of all euro-SIs, representing €13.5 trillion or 61 percent of total assets[16].

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These findings focus on ownership structures and as such cover only some aspects of the euro-area banks' governance idiosyncrasies. There are also many specific legal and practical arrangements under which, for example, board members are assessed, selected and renewed. Even among companies with dispersed ownership, in at least some countries, rules and practices can enable a small subset of shareholders, incumbent board members, employees' unions and/or the bank's managers to wield disproportionate influence[17]. 'Shareholder democracy' is not perfect anywhere, but just like political democracy, it is more distorted in some jurisdictions than in others. An analysis of such differences would complement the results presented in this Policy Contribution.

Unsurprisingly, these euro-area findings mask significant diversity among EU member states. While not the main focus of this Policy Contribution, Table 4 shows the governance structures of euro-SIs by country[18]. One must keep in mind that these findings are only a current snapshot of a constantly evolving reality. For example, some of the Italian banks now labelled 'dispersed' (eg UniCredit or Monte dei Paschi di Siena) would have been until recently in the 'minority influence' or 'private control' categories, but the stakes of regional foundations that dominated their governance have been diluted in successive waves of capital raising (and Monte dei Paschi is expected to be nationalised soon). Similarly, most Greek banks had been 'nationalised' before their capital raising of late 2015. These changes will continue. The ownership structures of 11 euro-SIs with total assets of €748 billion are expected to undergo significant changes before the end of 2017[19], and others might also change ownership soon. Thus, Table 4 does not display permanent structures of national banking systems, at least not for all euro-area countries.

14 These are, by decreasing order of total assets, BNP Paribas, Commerzbank, Bank of Ireland, National Bank of Greece, Piraeus Bank, Alpha Bank, PBB Deutsche Pfandbriefbank, Aareal Bank and Bank of Valletta. In all these cases except BNP Paribas, the government in question is that of the country in which the bank is headquartered. In all except Aareal and BNP Paribas, the bank is in the 'minority influence' governance category.

15 These banks are, by decreasing order of total assets, Intesa Sanpaolo, CaixaBank, Erste Group, UBI Banca, Unicaja, Ibercaja, Kutxabank and Liberbank.

16 These totals are obtained by adding the 'cooperative' banks, 'public sector' banks, 'nationalised' banks, and the 17 (9+8) other groups specifically referred to.

17 For example, UniCredit recently announced a governance overhaul to bring it closer to that of a 'normal' listed company with dispersed ownership. See M. Ferrando and A. Graziani, 'UniCredit, una nuova governance per una public company europea,' *Il Sole 24 Ore*, 17 April 2017.

18 As a reminder, Table 4, like other results in this Policy Contribution, presents a 'home-country' perspective, not a 'host-country' one. In other words, the table displays the global assets of banks headquartered in the respective jurisdictions. A host-country perspective, by contrast, would display only the assets located in the jurisdictions, but of all banks irrespective of where they're headquartered. Thus, for example, countries such as Estonia or Slovakia, which have no euro-SIs headquartered in their territory, do not appear in Table 4.

19 These are Allied Irish Banks, HSH Nordbank, Nova Ljubljanska Banka, Novo Banco, SNS Bank, expected to be at least partly privatised in 2017; Banca Popolare di Vicenza, Veneto Banca and Monte dei Paschi di Siena, expected to be nationalised or resolved; Ibercaja and Unicaja, expected to be listed on the Spanish stock market; and Banco Mare Nostrum, expected to be merged with Bankia.

Table 4: Governance structures of euro-SIs by country

Country	Total euro-SI assets (€bns)	Dispersed	Minority infl.	Priv. control	Coop.	Public sector	Nationalised	Total
France	7,365	2/45%	1/1%	1/1%	3/49%	4/5%	-	11/100%
Germany	4,435	2/38%	2/14%	1/3%	4/15%	10/31%	-	19/100%
Spain	3,409	4/72%	3/14%	3/5%	1/1%	-	2/7%	13/100%
Italy	2,351	6/60%	4/35%	2/3%	1/2%	-	-	13/100%
Netherlands	2,206	1/38%	-	-	1/30%	2/11%	2/21%	6/100%
Belgium	747	-	1/34%	3/12%	-	-	2/54%	6/100%
Austria	449	-	1/45%	1/8%	4/47%	-	-	6/100%
Greece	342	-	4/100%	-	-	-	-	4/100%
Ireland	263	-	1/50%	-	-	-	2/50%	3/100%
Portugal	234	-	1/32%	-	-	1/43%	1/25%	3/100%
Finland	159	-	-	-	1/79%	1/21%	-	2/100%
Luxembourg	76	-	-	1/43%	-	1/57%	-	2/100%
Cyprus	44	-	2/68%	-	-	-	1/32%	3/100%
Slovenia	20	-	-	1/20%	-	2/80%	-	3/100%
Malta	13	-	1/77%	1/23%	-	-	-	2/100%
Latvia	5	-	1/100%	-	-	-	-	1/100%
Total/ave.	22,118	15/44%	22/14%	14/3%	15/24%	21/10%	10/6%	97/100%

Source: Bruegel based on Appendix A. Note: Each cell displays, for each country, the number of euro-SIs in each category and the corresponding percent share of the aggregate assets of the country's euro-SIs. Cells are shaded when the asset share is above a significance threshold of 30 percent. Countries are ranked by total euro-SI assets. Assets are as of end-2015. SIs = significant institutions.

International perspective

This section compares the euro area's larger banks with banks of similar size in Australia, Canada, the United Kingdom and the United States, taken as representing the dispersed-ownership model. The 'large euro-SIs' are those with total assets above €30 billion. This subsample comprises 84 of the 97 euro-SIs as of mid-November 2016, representing 99.3 percent of aggregate euro-SI assets. A parallel sample of 'Anglo-Sis', comprising all banks headquartered in the four selected countries with total assets above €30 billion, is based on a reference ranking of global banks (*The Banker*, 2016)[20]. This sample consists of 53 groups, as summarised in Table 5 (coincidentally the two samples cover about the same amount of aggregate assets).

Table 5: Anglo-SIs

Country	Number of banks	Assets	
		€ billions	% of total assets
Australia	7	2,541	10.1
Canada	8	3,334	13.3
United Kingdom	10	7,016	28.0
United States	28	12,175	48.6
Total Anglo-SIs	53	25,066	100.0

Source: Bruegel based on *The Banker* (2016) and a dollar/euro exchange rate of 1.087. Note: Assets are as of end-2015. SIs = significant institutions.

20 The exchange rate of US$1.087 per euro used in The Banker's ranking is adopted here. Asset totals in the list are based on different accounting standards in different jurisdictions; no attempt has been made here to correct for the corresponding distortions. See Hoenig (2016) for an attempt to do so for G-SIBs.

The criteria for inclusion in *The Banker*'s ranking are not identical to the ECB's criteria for designation as SIs, but the differences (and corresponding selection bias) can be considered insignificant. In both cases, large nonbank public institutions are excluded, such as France's Caisse des Dépôts et Consignations or Germany's Kreditanstalt für Wiederaufbau in the euro area, or Canada's Caisse de Dépôt et de Placement du Québec or Fannie Mae and Freddie Mac in the United States. Most large euro-SIs that do not appear on *The Banker*'s list are public financial institutions for which no equivalent appears to exist in the four 'Anglo-Saxon' countries[21]. Otherwise, only five large euro-SIs[22] are missing from *The Banker*'s list, and they represent only 1.0 percent of aggregate euro-SI assets. Conversely, two euro-area groups[23] with assets above €30 billion that appear on *The Banker*'s list are not classified as SIs by the ECB, presumably because both are bank-insurance conglomerates whose banking arms are small enough to be considered LSIs. In sum, applying the ECB's SI criteria would have yielded a sample of Anglo-SIs very similar, if not identical, to that derived from *The Banker*'s ranking.

In terms of ownership and governance patterns, the contrast with the euro area is evident. All Australian and Canadian banks in the sample except one (Canada's Desjardins) are listed companies with dispersed ownership. Such banks also dominate in the United Kingdom and the United States. There are no public-sector banks, none under private control, and only one nationalised bank (Royal Bank of Scotland)[24]. The only unlisted groups are the cooperatives (one in Canada and three in the United Kingdom), which are all comparatively small. Appendix B provides the full list, and Table 6 summarises the findings[25].

Table 6: Governance structures of large euro-SIs versus Anglo-SIs

Governance structure	Number of large euro-SIs	Euro-SI assets		Number of Anglo-SIs	Anglo-SI assets	
		€ billions	% of total assets		€ billions	% of total assets
Dispersed	15	9,723	44.3	43	21,874	87.3
Minority infl.	18	2,943	13.4	5	1,543	6.2
Private control	11	559	2.5	0	0	0.0
Cooperative	13	5,313	24.2	4	529	2.1
Public sector	19	2,156	9.8	0	0	0.0
Nationalised	8	1,269	5.8	1	1,120	4.5
Total	84	21,963	100.0	53	25,066	100.0
Publicly listed	37	15,160	69.0	49	24,537	97.9
Unlisted	47	6,803	31.0	4	529	2.1
Total	84	21,963	100.0	53	25,066	100.0

Source: Bruegel based on appendices A and B. Note: Assets are as of end-2015. SIs = significant institutions.

21 These are, by decreasing order of balance sheet size as of end-2015, NRW.Bank, HSH Nordbank, Erwerbegesellschaft der S-Finanzgruppe, SFIL, L-Bank, Hamburger Sparkasse, bpiFrance, Agence Française de Développement and Kuntarahoitus. In the US, for example, only two state-owned banks appear to exist, Bank of North Dakota and Government Development Bank for Puerto Rico, both with total assets well under the €30 billion threshold.

22 These are, by decreasing order of balance sheet size as of end-2015, PBB Deutsche Pfandbriefbank, Iccrea, Caisse de Refinancement de l'Habitat, RCI Banque and Precision Capital/Banque Internationale à Luxembourg.

23 Germany's Wüstenrot & Württembergische and Italy's Mediolanum.

24 At the time of observation, the UK government had already sold almost all of its holdings in Lloyds Banking Group.

25 The observed differences are not about the respective sizes of both bank samples, which in any case are based on the same size threshold of €30 billion. For comparison purposes, if the euro-SIs sample were limited to the 53 largest instead of 84 (namely, all those with assets above €65 billion), the proportions (by assets) would have been: dispersed (46 percent), minority influence (13 percent), private control (1 percent), cooperative (25 percent), public sector (9 percent), nationalised (5 percent) – altogether a picture very similar to that in Table 6.

Policy analysis and implications

The governance structures of significant banks in the euro area differ markedly from their equivalents in Australia, Canada, the United Kingdom and the United States, and listed banks with dispersed ownership are less prominent in the euro area than is often assumed. Exploring why euro-area banks have different governance patterns would be a highly valuable historical analysis but is not attempted in this Policy Contribution because these patterns arose under a materially different policy framework before the introduction of banking union, and their past drivers are thus only of limited relevance for present and future policy. For the same reason, this Policy Contribution also does not address the role of different governance structures in causing the euro-area banking crisis that started in 2007, and in the associated supervisory failures in most euro-area countries.

The findings that the governance structures of most euro-area banks are potentially vulnerable to some form of political interference and that only a minority are listed companies with dispersed ownership have implications for financial stability, resilience to shocks and other areas of public policy.

- First, the governance patterns make the euro-area banking system less transparent and, as a consequence, less subject to market discipline. Listed companies have to comply with much more stringent disclosure requirements than their unlisted counterparts, and among listed companies, those with dispersed ownership have more incentives to be transparent than those controlled by one shareholder or shareholding group. Many studies of the euro-area banking system (including most of its coverage by investment banks) focus on publicly listed entities, thus missing about two-fifths of the total as measured by assets (if LSIs are included). Other incentives for transparency apply to all banks, for example, the scrutiny of credit rating agencies or the disclosure requirements under the so-called third pillar of the Basel capital framework, but they are not powerful enough. Correspondingly, there is less public and market pressure on banks to respond to changes in the market environment (or market discipline) in the euro area than in other jurisdictions such as the United States, United Kingdom, Canada and Australia.
- Second, all things being equal, euro-area banks have weaker incentives to prioritise profitability among their objectives, since minority investors in a dispersed-ownership structure tend to focus most on profits and dividends. As a result, euro-area banks typically take longer to reconstitute their capital buffers after a shock, even when they are able to retain comparatively more of the profits they make. Simultaneously, the competitive pressure from banks that don't prioritise profits might erode the profitability of even those banks that respond to capitalist incentives, a familiar complaint of commercial bankers in Germany, for example.
- Third, many of the ownership structures make it more difficult for euro-area banks to raise fresh capital externally when they need it. Controlling or influential shareholders often don't want to have their stakes reduced and might resist calls for more capital for that reason[26]. In some cooperative or public-sponsored banking structures, it is difficult, in certain cases even impossible, to raise external capital in the form of common equity. For a long time this was a key challenge for many Spanish savings banks (*cajas de ahorros*) that contributed to their chronic undercapitalisation. In state-owned banks, their government shareholder is often constrained when they need additional capital, because of fiscal stress, the unpopularity of taxpayer-funded bailouts and/or the EU state aid control framework. Listed banks with dispersed ownership have comparatively greater capital flexibility.

26 Of course, shareholders of all banks tend to resist capital increases that would dilute their share of future profits. But in cases of dispersed ownership, there is typically less resistance against the related loss of control.

- Fourth, the politicisation of management that results from many euro-area banks' ownership and governance structures often affects their operations. It can lead banks to deviate from 'commercially driven' business decisions, for example, lending more to preferred borrowers or sectors or to the government itself, and/or during economic downturns (eg Sapienza, 2004; Bertay, Demirgüç-Kunt and Huizinga, 2015; Gropp and Saadi, 2015). This can in turn lead to detrimental trade-offs in terms of risk taking and profitability. More straightforwardly, bank politicisation can lead to inefficiency, for example, by driving an outsized influence of staff unions in the bank's decisions or by tilting recruitment policies towards beneficiaries of political patronage. To be sure, incompetence and poor risk assessment are regularly observed in all kinds of banks, including the most commercially run, but they can still be expected to be somewhat correlated with political interference.
- Fifth, the structures of euro-SIs may perpetuate the vicious circle between banks and sovereigns, which is now widely identified as a key driver of the euro-area crisis, in a way that is less obvious but not necessarily less powerful than visible financial linkages such as national deposit guarantees or bank-held portfolios of home-country sovereign debt. Governments are likely to have stronger implicit guarantees for banks that they are linked to through the banks' governance and ownership. Conversely, banks owned or otherwise directly influenced by governments tend to display higher home bias in their portfolios of sovereign debt (De Marco and Macchiavelli, 2016).

Shifting toward a greater share of listed banks with dispersed ownership can thus bring benefits to the euro-area banking system, particularly in terms of capital flexibility and the gradual elimination of the bank-sovereign vicious circle

As for possible macroeconomic benefits from banks owned or influenced by the state, evidence is mixed at best. Even when lending by such banks is less procyclical (or in some cases, countercyclical) – ie their lending rises during economic downswings – state banking appears to be costly and inefficient compared with other countercyclical tools (Bertay, Demirgüç-Kunt and Huizinga, 2015)[27].

Shifting toward a greater share of listed banks with dispersed ownership can thus bring benefits to the euro-area banking system, particularly in terms of capital flexibility and the gradual elimination of the bank-sovereign vicious circle. In particular, this analysis suggests more reasons to privatise banks in public ownership, including those nationalised during the crisis, and to sell government-held minority stakes, beyond any obligations that member states might have under the EU state aid framework. Such sales should be made to the highest suitable bidder at any moment when market conditions are not evidently adverse, even if the sale price doesn't allow a government to recoup all losses from past interventions.

More generally, EU policymakers should avoid creating or maintaining any distortions that undermine the dispersed-ownership model. A review of such distortions in the euro area is beyond the scope of this Policy Contribution. The ECB's prudential supervision appears to be broadly neutral in this respect, in contrast to many past supervisory practices at the national level (Schoenmaker and Véron 2016), despite controversies about its possible preferential treatment of individual banks[28]. But the prudential rulebook is still far from fully harmonised (ECB 2016a), and national prudential idiosyncrasies might linger that favour specific governance structures. EU legislators should use the ongoing revision of the framework for bank capital requirements to better align with the global standards set by the Basel Committee on Banking Supervision, including stricter regulatory definitions of common equity, the elimination of capital double counting between banking and insurance activities of the same group and dismantling regulatory privileges to specific categories of borrowers (see BCBS,

27 A pre-crisis literature review by Levy Yeyati, Micco and Panizza (2005) concluded that *"we still do not know enough to pass a final judgment on the role of state-owned banks and hence more research is needed".* Much of this comparative literature is focused on emerging markets.

28 See, for example, Laura Noonan, Caroline Binham and James Shotter, 'Deutsche Bank received special treatment in EU stress tests: German lender's result was boosted by a special concession agreed by the European Central Bank,' *Financial Times*, 10 October 2016; and Case Study 1 on Monte dei Paschi di Siena in Transparency International EU (2017).

2014). EU legislation should also allow supervisors sufficient discretion to impose requirements for additional capital above the regulatory minimum, known as Pillar II requirements in the Basel Committee's jargon[29]. In turn, euro-area supervisors should rigorously enforce the capital requirements framework, not only the ECB on SIs but also national supervisors on LSIs.

Beyond the prudential framework, policymakers at national and European levels should identify and dismantle other aspects of policy, especially (but not limited to) tax arrangements, that may distort banking groups' structures and be unfavourable to listed banks with dispersed ownership. Some of these distortions may be significant.

None of these recommendations go against the organising principles of the euro area's existing banking policy framework. Public authorities will have to be persistent in implementing them, given the heavy legacy of links – not only financial but also political and social – between many of the euro-area banks and their local or national political systems. Since the initiation of euro-area banking union, many banks have gradually returned to soundness. More effort is needed, however, for the system to acquire sufficient capital and managerial flexibility, so that it can respond more nimbly to future shocks than it has in the recent past.

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29 See Alexander Weber and Boris Groendahl, 'EU Bank Supervisors Face Constraints in Setting Capital Charges,' *Bloomberg*, 15 November 2016.

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Appendix A: Euro-SIs (significant institutions headquartered in the euro area)

Banking group	Country	Headquarters	Assets (€ bns)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
BNP Paribas	FR	Paris	1,994	Dispersed	SFPI	National government (Belgium)	10.2%	BNPP Employee Stock Ownership Plan 3.7%
Crédit Agricole	FR	Paris	1,699	Cooperative	SAS rue La Boétie	Cooperative Banks (France)	56.6%	CA Employee Stock Ownership Plan 3.69%
Deutsche Bank	DE	Frankfurt	1,629	Dispersed	BlackRock Fund Advisors	Investment manager (New York)	6.0%	C-Quadrat AM 3.04%; Deutsche AM 2.91%; Merrill Lynch 2.67%
Banco Santander	ES	Madrid (Santander)	1,340	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.2%	NBIM 1.79%; BlackRock 1.25%; Dodge & Cox 1.19%
Société Générale	FR	Paris	1,334	Dispersed	Lyxor Int'l Asset Mgmt SAS	Investment manager owned by Société Générale	6.6%	Capital Group 2.98%
BPCE	FR	Paris	1,167	Cooperative	Caisse d'Epargne d'Ile-de-France	Cooperative bank (Paris region)	7.0%	50% owned by 20 Banques Populaires; 50% by 17 Caisses d'Epargne
UniCredit	IT	Milan	860	Dispersed	Aabar Investments	National government (Abu Dhabi)	5.0%	Capital Group 3.69%; Dodge & Cox 1.91%; Central Bank of Libya 1.57%
ING	NL	Amsterdam	842	Dispersed	Artisan Partners LP	Investment manager (Wisconsin)	3.0%	Vanguard 2.16%; UBS AM 1.59%; NBIM 1.52%
BBVA	ES	Madrid (Bilbao)	750	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.2%	Northern Cross 1.28%; BlackRock 1.24%; NBIM 1.24%
Crédit Mutuel	FR	Paris	707	Cooperative	Caisse Fédérale de Crédit Mutuel	Cooperative bank (Eastern France)	53.2%	CM Arkea 21.67%; CFCM N Europe 8.6%; CFCM Océan 6.79% (2011)
Intesa Sanpaolo	IT	Milan	676	Minority influence	Compagnia di San Paolo	Regional foundation (Turin)	9.3%	Fond.Cariplo 4.84%; Generali 3.41%; Fond. Cariparo 3.30%
Rabobank	NL	Utrecht	670	Cooperative	n.a.	Cooperative banks (Netherlands)	n.a.	108 local cooperative banks; ownership breakdown not found
Commerzbank	DE	Frankfurt	533	Minority influence	Government of Germany	National government (Germany)	15.6%	Capital Group 2.98%
DZ Bank	DE	Frankfurt	498	Cooperative	n.a.	Cooperative banks (Germany)	n.a.	Owned by 1,021 local cooperative banks; no public breakdown found
ABN AMRO	NL	Amsterdam	390	Nationalised	NLFI	National government (Netherlands)	70.0%	Henderson 3.51%; BlackRock 2.48%
CaixaBank	ES	Barcelona	385	Minority influence	Fundacion Bancaria CEPB	Regional foundation (Catalonia)	40.0%	Vanguard 1.18%
KBC	BE	Brussels	252	Minority influence	KBC Ancora SCA (majority-owned by CERA)	Cooperative (Belgium)	18.5%	"Core shareholder syndicate" holds >40%
LBBW	DE	Stuttgart	234	Public sector	Savings Banks Assocn of Baden-Württemberg	Local governments (Baden-Württemberg)	40.5%	State of Baden-Württemberg 40.5%; City of Stuttgart 19%
Dexia	BE	Brussels	230	Nationalised	SFPI	National government (Belgium)	50.0%	Govt of France 44.40%; Dexia is being gradually wound up
La Banque Postale	FR	Paris	219	Public sector	La Poste Group	National government (France)	100.0%	
BayernLB	DE	Munich	216	Public sector	Free State of Bavaria	Regional government (Bavaria)	75.0%	Rest held by Assoc. of Bavarian savings banks
Banco Sabadell	ES	Sabadell	209	Dispersed	Mr Jaime Gilinski Bacal	Individual (Colombian, London-based)	7.3%	Fintech Advisory 2.99%; Deutsche AM 2.40%
Bankia	ES	Madrid (Valencia)	207	Nationalised	FROB	National government (Spain)	66.1%	NBIM 2.33%; privatisation expected by 2019

Erste Group	AT	Vienna	200	Minority influence	Erste Foundation	National foundation (Austria)	19.3%	CaixaBank 9.92%; Erste Group Bank 4.49%; NBIM 3.58%
NORD/LB	DE	Hanover	181	Public sector	State of Lower Saxony	Regional government (Lower Saxony)	59.1%	Savings Banks Assn.of L Saxony 26.4%; State of Saxony-Anhalt 5.6%
Belfius	BE	Brussels	177	Nationalised	SFPI	National government (Belgium)	100.0%	No decision to privatise
Landesbank Helaba	DE	Frankfurt	172	Public sector	Savings Banks Assocn of Hesse & Thuringia	Local governments (Hesse & Thuringia)	68.9%	States of Hesse (8%) & Thuringia (4%), 4 other savings banks assocns
Banco BPM	IT	Milan	171	Dispersed	NBIM	National government (Norway)	3.2%	Dimensional 3.09%; Vanguard 2.0%; CPPIB 1.67%
Monte dei Paschi di Siena	IT	Siena	169	Dispersed	Alken Asset Management Ltd.	Investment manager (London)	4.3%	Italian Govt 4.02%; AXA IM 3.17%; nationalisation possible in 2017
Banco Popular	ES	Madrid	159	Dispersed	Groupe Crédit Mutuel-CIC	see Credit Mutuel	4.0%	Banco Popular 2.20%; Baillie Gifford & Co. 2.17%; Allianz 1.93%
BNG Bank	NL	The Hague	150	Public sector	Government of the Netherlands	National government (Netherlands)	50.0%	Rest mostly held by provincial and municipal authorities
NRW.BANK	DE	Düsseldorf (Münster)	141	Public sector	State of North Rhine-Westphalia	Regional government (North Rhine-Westphalia)	Public	
Raiffeisen Bank International	AT	Vienna	138	Cooperative	Raiffeisenlandesbank NÖ-Wien	Cooperative bank (Lower Austria)	22.6%	Regional banks together hold 60.7%; NBIM 1.41%
Bank of Ireland	IE	Dublin	131	Minority influence	Government of Ireland	National government (Ireland)	14.0%	Capital Group 6.64%; Fidelity 4.92%
OP Financial Group	FI	Helsinki	125	Cooperative	OP Central Cooperative	Cooperative (Finland)	100.0%	Central cooperative owned by 180 local cooperative banks
VW Financial Services	DE	Braunschweig	121	Private control	Volkswagen Group	Carmaker (Germany)	100.0%	
UBI Banca	IT	Milan (Bergamo)	117	Dispersed	Fondazione CaRiCuneo	Regional foundation (Piedmont)	5.5%	Fond.Banca Monte Lombardia 4.81%; Silchester 4.73%
National Bank of Greece	GR	Athens	111	Minority influence	Hellenic Financial Stability Fund	National government (Greece)	38.9%	Vanguard 1.98%
HSH Nordbank	DE	Hamburg (Kiel)	110	Public sector	HSH Beteiligungs Management GmbH	Regional governments (Hamburg & S-H, jointly)	94.9%	JC Flowers 5.1% of HSH; SH Sparkassen 5.85% of HSHBM; sale ongoing
DekaBank	DE	Frankfurt	108	Cooperative	Savings Banks Assocn of Baden-Württemberg	Cooperative banks (Baden-Württemberg)	15.9%	11 other regional SB associations through 2 entities (each 50%)
Allied Irish Banks	IE	Dublin	103	Nationalised	Government of Ireland	National government (Ireland)	99.8%	Privatisation expected to start in 2017
Caixa Geral de Depósitos	PT	Lisbon	101	Public sector	Government of Portugal	National government (Portugal)	100.0%	
Landwirtschaftliche Rentenbank	DE	Frankfurt	93	Public sector	Government of Germany	National government (Germany)	100.0%	
Nederlandse Waterschapsbank	NL	The Hague	91	Public sector	Government of the Netherlands	National government (Netherlands)	17.0%	Rest almost entirely held by 22 local water authorities
Piraeus Bank	GR	Athens	88	Minority influence	Hellenic Financial Stability Fund	National government (Greece)	26.0%	Paulson & Co 9.13%; Alden 4.79%
Erwerbsgesellschaft der S-Finanzgruppe	DE	Neuharden-berg	87	Public sector	Regionalverbandgesell-schaft der S-Finanzgruppe	Local governments (Germany)	100.0%	RVG owned by savings banks; no ownership breakdown found

SFIL	FR	Paris	84	Public sector	Government of France	National government (France)	100.0%	25% held through Caisse des Dépôts and Banque Postale
Millennium BCP	PT	Lisbon	75	Minority influence	Fosun International Ltd	Investment group (China)	24.0%	Sonangol 14.87%
Eurobank Ergasias	GR	Athens	74	Minority influence	Fairfax Financial	Investment group (Canada)	16.9%	Capital Group 6.33%; Vanguard 2.56%
L-Bank	DE	Karlsruhe	73	Public sector	State of Baden-Württemberg	Regional government (Baden-Württemberg)	Public	
Mediobanca	IT	Milan	71	Minority influence	UniCredit Group	see UniCredit	8.5%	Bolloré 7.87%; Mediolanum 3.33%; shareholder agreement covers 31%
Alpha Bank	GR	Athens	69	Minority influence	Hellenic Financial Stability Fund	National government (Greece)	11.0%	Paulson & Co 6.52%; Baupost 4.65%; Credit Agricole 3.84%
PBB Deutsche Pfandbriefbank	DE	Munich	67	Minority influence	Government of Germany	National government (Germany)	20.0%	MainFirst Bank IM 4.99%
SNS Bank	NL	Utrecht	63	Nationalised	SNS REAAL	National government (Netherlands)	100.0%	Privatisation possibly in 2017
Banca Pop. dell'Emilia Romagna	IT	Modena	61	Dispersed	UnipolSai Assicurazioni	Insurer (Italy)	5.0%	Dimensional 4.34%; Fondazione Sardegna 3.02%; NBIM 2.96%
Unicaja	ES	Malaga	60	Private control	Unicaja Foundation	Regional foundation (Andalusia)	86.7%	Rest held by institutional investors; IPO forthcoming
Ibercaja	ES	Zaragoza	59	Private control	Ibercaja Banking Foundation	Regional foundation (Aragon & Rioja)	87.8%	Rest held by 3 other regional foundations; IPO forthcoming
Bankinter	ES	Madrid	59	Minority influence	Mr Jaime Botin	Individual (Spain)	22.9%	Standard Life 5.25%; Mr Fernando Masaveu 5%
Kutxabank	ES	Bilbao	58	Private control	Bilbao Bizkaia Kutxa Foundation	Regional foundation (Biscaye)	57.0%	Kutxa (San Sebastian) 32%; Caja Vital 11%
Novo Banco	PT	Lisbon	58	Nationalised	Portuguese Resolution Fund	National government (Portugal)	100.0%	Privatisation expected in 2017
Aareal Bank	DE	Wiesbaden	52	Dispersed	Versorgung Bund und Länder	National pension fund (Germany)	6.5%	Deka Inv. 5.58%; Dimensional 4.52%
Iccrea Holding	IT	Rome	50	Cooperative	Banca di Credito Cooperativo di Roma	Cooperative bank (Rome)	4.0%	Rest held by 327 other local cooperatives and other shareholders
HASPA	DE	Hamburg	46	Public sector	Haspa Finanzholding (public entity)	Regional government (Hamburg)	100.0%	
BpiFrance	FR	Paris	45	Public sector	Government of France	National government (France)	100.0%	50% held through Caisse des Depots et Consignations
Banque et Caisse d'Epargne de l'Etat	LU	Luxembourg	43	Public sector	Government of Luxembourg	National government (Luxembourg)	Public	
AXA Bank	BE	Brussels	43	Private control	AXA Group	Insurer (France)	100.0%	
CRH	FR	Paris	43	Minority influence	Credit Mutuel Group	see Credit Mutuel	36.7%	Credit Agricole 34.7%; SocGen 16.0%; BNPP 6.3%; BPCE 6.3%
Liberbank	ES	Madrid	42	Minority influence	Caja de Ahorros de Asturia	Regional Foundation (Asturias)	29.7%	Caja Extremadura 8.84%; Mr Ernesto Tinajero 7.57%
Banco Mare Nostrum	ES	Madrid	41	Nationalised	FROB	National government (Spain)	65.0%	Rest mostly held by local foundations; in process of merger into Bankia
Banca Popolare di Vicenza	IT	Vicenza	40	Private control	Atlante fund	UniCredit, Intesa SP (23% each) & others	99.3%	Nationalisation possible in 2017

Banco de Crédito Social Cooperativo	ES	Madrid	40	Cooperative	Cajamar Cooperative Credit Group	Cooperative (Spain)	85.5%	Private investors 4.58%; other cooperatives 9.79%
Investar / Argenta Bank	BE	Antwerp	39	Private control	Van Rompuy family	Family (Belgium)	100.0%	
Münchener Hypothekenbank	DE	Munich	38	Cooperative	>75,000 individual members	Cooperative (Bavaria)	Coop.	Affiliated to Bavarian Cooperatives Association (GVB)
Credito Emiliano	IT	Reggio Emilia	37	Minority influence	Credito Emiliano Holding	Local interests incl. 29% Cofimar property group	75.6%	FIL Investments 1.28%
Raiffeisenlandesbank Oberösterreich	AT	Linz	37	Cooperative	Local (upper Austrian) Raiffeisen banks	Cooperative banks (Upper Austria)	n.a.	Detailed ownership breakdown not found in publicly available sources
RCI Banque	FR	Paris	37	Private control	Renault SAS	Carmaker (France)	100.0%	
Agence Française de Développement	FR	Paris	36	Public sector	Government of France	National government (France)	100.0%	
apoBank	DE	Düsseldorf	36	Cooperative	>100,000 health professionals	Cooperative (Germany)	Coop.	Affiliated to BVR pillar of German cooperative banks
Banca Popolare di Sondrio	IT	Sondrio	36	Dispersed	NBIM	National government (Norway)	2.6%	Dimensional 2.57%; Amber Capital 2.05%; Vanguard 2.01%
Promontoria Sacher / BAWAG	AT	Vienna	36	Private control	Cerberus Capital Management	Private equity fund (New York)	52.1%	GoldenTree Asset Management 39.77%
Kuntarahoitus (MuniFin)	FI	Helsinki	34	Public sector	Keva pension agency	Public employee pension fund (Finland)	30.7%	Finnish Govt 16%; rest held by municipalities
Precision Capital / BIL	LU	Luxembourg	33	Private control	Al-Thani Family	Ruling family (Qatar)	100.0%	
Veneto Banca	IT	Montebelluna	33	Private control	Atlante fund	UniCredit, Intesa SP (23% each) & others	97.6%	Nationalisation possible in 2017
Banca Carige	IT	Genoa	30	Minority influence	Malacalza Family	Family (Italy)	17.6%	Ansbury Inv. 6%; Toscafund AM 4.53%; NBIM 1.98%
Permanent TSB	IE	Dublin	29	Nationalised	Government of Ireland	National government (Ireland)	74.9%	Janus Capital 3.87%
Raiffeisen-Holding NÖ-Wien	AT	Vienna	28	Cooperative	Local (lower Austrian) Raiffeisen banks	Cooperative banks (Lower Austria)	n.a.	Detailed ownership breakdown not found in publicly available sources
Bank of Cyprus	CY	Nicosia	23	Minority influence	Lamesa Holding (Renova Group)	Investment group (Russia)	9.9%	Cyprus Pop Bank 9.6%; TD AM 5.2%; EBRD 5%
Cooperative Central Bank	CY	Nicosia	14	Nationalised	Government of Cyprus	National government (Rep. of Cyprus)	99.2%	21.88% through Recap.Fund; privatisation scheduled to start 2018
Nova Ljubljanska Banka	SI	Ljubljana	12	Public sector	Government of Slovenia	National government (Slovenia)	100.0%	Privatisation expected in 2017
Bank of Valletta	MT	Valletta	10	Minority influence	Government of Malta	National government (Malta)	23.4%	UniCredit 13.75%
Volksbank Wien	AT	Vienna	10	Cooperative	Government of Austria	National government (Austria)	25.0%	Rest overwhelmingly owned by local cooperative banks
Hellenic Bank	CY	Nicosia	7	Minority influence	Third Point LLC	Hedge fund (New York)	26.2%	Wargaming 24.9%; Demetra 10.1%; EBRD 5.37%
Banque Degroof	BE	Brussels	6	Private control	Controlling families	Families (Belgium)	70.0%	Rest held by management, staff, partners and others

ABLV Bank	LV	Riga	5	Minority influence	Mr. Ernest Bernis	Individual (Latvia)	43.0%	Mr Oleg Fil 43%; rest partly held by management
Abanka	SI	Ljubljana	4	Public sector	Government of Slovenia	National government (Slovenia)	100.0%	Privatisation expected by 2019
Nova Kreditna Banka Maribor	SI	Maribor	4	Private control	Apollo Global Management LLC	Private equity fund (New York)	80.0%	EBRD 20%
Mediterranean Bank	MT	Valletta	3	Private control	AnaCap Financial Partners LLP	Private equity fund (London)	Majority	Rest held by bank management

Sources: ECB (2016c); Schoenmaker & Véron (2016); 4-traders.com (see footnote 6); corporate and media websites. Assets are as of end-2015.

Appendix B: Anglo-SIs (significant institutions headquartered in Australia, Canada, the United Kingdom, and the United States)

Banking Group	Country	Headquarters	Assets (€ bns)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
HSBC	UK	London	2,217	Dispersed	Legal & General	Insurer (UK)	2.8%	Vanguard 2.6%
JP Morgan Chase	US	New York NY	2,163	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.7%	SSgA Funds Mgmt 4.73%
Bank of America	US	Charlotte NC	1,976	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.3%	SSgA FM 4.63%; BlackRock 4.16%
Wells Fargo	US	San Francisco CA	1,645	Dispersed	Berkshire Hathaway	Investment group (Nebraska)	9.6%	Vanguard 5.99%; SSgA 4.22%
Citigroup	US	New York NY	1,593	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.5%	SSgA FM 4.83%; BlackRock 4.29%
Barclays	UK	London	1,538	Dispersed	Qatar Holding (QIA)	National government (Qatar)	6.0%	Capital Group 4.63%; BlackRock 3.90%
RBS	UK	Edinburgh	1,120	Nationalised	HM Treasury	National government (UK)	71.3%	Artisan Partners 2.42%
Lloyds Banking Group	UK	London	1,108	Dispersed	NBIM	National government (Norway)	3.0%	HM Treasury 2.95%; BlackRock 2.93%
Goldman Sachs	US	New York NY	792	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	5.7%	SSgA 5.58%; GS Group Shareholders Agreement 4.88%
Toronto Dominion Bank (TD)	CA	Toronto	776	Dispersed	RBC Global Asset Management	Investment manager (Canada)	6.2%	CIBC 3.93%; BMO AM 3.68%
Royal Bank of Canada (RBC)	CA	Toronto (Montreal)	754	Dispersed	TD Asset Management	Investment manager (Canada)	5.0%	CIBC World Markets 3.74%; BMO AM 3.70%
Morgan Stanley	US	New York NY	724	Minority influence	Mitsubishi UFJ Financial Group	Financial group (Japan)	23.3%	SSgA 8.79%; T.Rowe Price 7.10%; Vanguard 4.75%
Scotiabank	CA	Toronto	679	Dispersed	RBC Global Asset Management	Investment manager (Canada)	5.9%	TD AM 5.58%; CIBC 4.13%; BMO AM 3.38%
Commonwealth Bank	AU	Sydney	618	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.1%	BlackRock 1.27%; NBIM 0.96%
National Australia Bank	AU	Melbourne	614	Dispersed	BlackRock AM North Asia	Investment manager (New York)	11.4%	BlackRock Fund Advisors 2.7%; Vanguard 2.05%
Standard Chartered	UK	London	589	Minority influence	Temasek Holdings	National government (Singapore)	15.7%	Dodge & Cox 5.39%; Northern Cross LLC 2.55%; L&G 2.23%
ANZ Banking Group	AU	Melbourne	573	Dispersed	BlackRock Fund Advisors	Investment manager (New York)	2.7%	Vanguard 2.06%; NBIM 1.39%
Westpac Banking Corp	AU	Sydney	522	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.1%	BlackRock 1.21%; NBIM 1.07%

Bank of Montreal (BMO)	CA	Toronto (Montreal)	451	Dispersed	TD Asset Management	Investment manager (Canada)	6.7%	RBC GAM 6.17%; CIBC WM 4.11%
US Bancorp	US	Minneapolis MN	388	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	5.9%	Berkshire Hathaway IM 5.02%; SSgA FM 4.40%
BNY Mellon	US	New York NY	362	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.2%	T.Rowe Price 5.61%
PNC Financial Services	US	Pittsburgh PA	330	Dispersed	Wellington Management	Investment manager (Boston)	8.4%	Vanguard 6.73%; SSgA 4.93%; BlackRock 4.12%
CIBC	CA	Toronto	325	Dispersed	TD Asset Management	Investment manager (Canada)	7.8%	RBC GAM 6.23%: 1832 AM 5.77%; BMO AM 4.06%
Capital One	US	Tysons VA	307	Dispersed	Dodge & Cox	Investment manager (San Francisco)	9.4%	Capital Group 7.81%; Vanguard 6.34%; Fidelity 5.63%
Nationwide Building Society	UK	Swindon	265	Cooperative	Nationwide Mutual Insurance Company	Cooperative (UK)	100.0%	Over 14 million cooperative members of NMIC
State Street	US	Boston MA	226	Dispersed	T. Rowe Price Associates	Investment manager (Baltimore)	9.8%	Massachusetts Fin. Services 8.38%
BB&T Corp	US	Winston-Salem NC	193	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.5%	SSgA 4.96%; BlackRock 4.42%; Dodge & Cox 2.62%
SunTrust Banks	US	Atlanta GA	176	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.9%	SSgA 5.44%; Fidelity 5.32%; BlackRock 4.92%
Desjardins Group	CA	Québec	165	Cooperative	Fédération des Caisses Dejardins du Québec	Cooperative banks (Quebec)	100.0%	Owned by 313 local credit unions in Quebec and Ontario
National Bank of Canada	CA	Montreal	152	Dispersed	Caisse de Dépôt et de Placement du Québec	Regional government (Quebec)	2.6%	BMO AM 2.48%; BlackRock 2.34%
American Express	US	New York NY	148	Minority influence	Berkshire Hathaway	Investment group (Nebraska)	16.8%	Vanguard 5.41%; SSgA 4.40%; BlackRock 3.51%
Ally Financial	US	Detroit MI	146	Dispersed	Harris Associates LP	Investment manager (Chicago)	7.8%	Vanguard 7.52%; Boston Partners 4.06%; JPM IM 3.76%
Macquarie Group	AU	Sydney	138	Dispersed	Macquarie IM	Investment manager owned by Macquarie	4.4%	BlackRock 2.99%; Colonial First State AM 1.91%
Fifth Third Bancorp	US	Cincinnati OH	130	Dispersed	T. Rowe Price Associates	Investment manager (Baltimore)	8.0%	Vanguard 7.41%; SSgA 5.72%; Invesco 5.37%
Regions Financial	US	Birmingham AL	116	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	10.8%	SSgA 6.07%; Fidelity 5.99%; BlackRock 4.81%
M&T Bank	US	Buffalo NY	113	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.0%	Fidelity 6.11%; SSgA 5.32%; BlackRock 4.50%
Northern Trust	US	Chicago IL	107	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	5.9%	Northern Trust Investments 5.70%; Wellington Mgmt 5.64%
KeyCorp	US	Cleveland OH	88	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.6%	SSgA 5.55%; BlackRock 4.67%; T.Rowe Price 3.74%
Discover Financial	US	Riverwoods IL	80	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.5%	SSgA 5.49%; Boston Partners Global Investors 4.31%
Comerica	US	Detroit MI	66	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.1%	SSgA 5.15%; BlackRock 4.68%; Fidelity 4.26%
Huntington Bankshares	US	Columbus OH	65	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.5%	Fidelity 7.04%; SSgA 5.89%; BlackRock 4.67%
CIT Group	US	New York NY	62	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	7.7%	Capital Group 7.55%; First Pacific Advisors 6.75%
Zions Bancorporation	US	Salt Lake City UT	55	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.7%	Invesco 6.69%; SSgA 6.17%; BlackRock 4.58%
Yorkshire Building Society	UK	Bradford	52	Cooperative	3.5 million members	Cooperative (Yorkshire)	Coop.	

Coventry Building Society	UK	Coventry	47	Cooperative	18 million members	Cooperative (Yorkshire)	Coop.	
New York Community Bancorp	US	Westbury NY	46	Dispersed	BlackRock Fund Advisors	Investment manager (New York)	8.0%	Vanguard 7.82%; Capital Group 5.12%; SSg1 4.52%
Suncorp Metway	AU	Brisbane	44	Dispersed	Capital Research & Mgmt Co.	Investment manager (Los Angeles)	4.8%	FIL IM 4.53%; BlackRock 2.58%; Vanguard 2.07%
Virgin Money	UK	Newcastle upon Tyne	42	Minority influence	Mr. Richard Branson	Individual (UK)	34.9%	Standard Life Investments 8.56%; Kames Capital 4.47%
SVB Financial Group	US	Santa Clara CA	41	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	7.5%	BlackRock 7.05%; Harding Loevner 5.14%
Cooperative Bank	UK	Manchester	40	Minority influence	The Co-operative Group	Cooperative (UK)	20.0%	Rest held by former bondholders following 2014 restructuring
People's United Financial	US	Bridgeport CT	36	Dispersed	SSgA Funds Management	Investment manager (Boston)	13.4%	Vanguard 9.45%; BlackRock 6.37; Wells Fargo Adv 4.76%
Bank of Queensland	AU	Brisbane	32	Dispersed	AllianceBernstein	Investment manager (New York)	3.6%	BlackRock 2.39%; Vanguard 2.05%
Laurentian Bank of Canada	CA	Montreal	31	Dispersed	Caisse de Dépôt et de Placement du Québec	Regional government (Quebec)	7.9%	Dimensional Fund Advisors 4.88%; BlackRock 3.74%

Sources: *The Banker* (2016; see footnote 20); 4-traders.com (see footnote 6); corporate and media websites. Assets are as of end-2015.