# **POLICY BRIEF**

## 17-18 Governance and Ownership of Significant Euro Area Banks

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The euro area banking crisis, which started in mid-2007 and has yet to be fully resolved, has sparked considerable debate and reform. The most prominent reform has been the initiation of banking union since 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 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 "Anglo-Saxon" countries such as Australia, Canada, the United Kingdom, and the United States.

Research in this Policy Brief 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 prioritize 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 take unnecessary risks due to 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.

#### **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 November 4, 2014. As a result, and despite many lingering national idiosyncrasies (ECB 2016a), the euro area can now be envisioned as a single jurisdiction for banking sector policy.

European banking supervision distinguishes between banks labeled 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, as well as 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 Brief is based on the list as of November 15, 2016 (ECB 2016c).

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, 4 are owned by other euro-SIs but still listed separately by the ECB,<sup>2</sup> and the other 25 are owned by groups

<sup>1.</sup> As the next section explains in more detail, this Policy Brief focuses on the 100-odd largest banks in the euro area, representing around four-fifths of total assets. The 3,000-odd smaller banks are excluded from the analysis because of lack of suitable public information.

<sup>2.</sup> These are Portugal's BPI, in the process of a full takeover by Spain's CaixaBank but still listed separately, and three

Table 1 Euro area banks

		As	sets
Category	Number of banks	Billions of euros	Percent 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	122ª	23,004	83.0
LSIs	3,168	4,695	17.0
Total	3,290	27,699	100.0

 $SIs = significant\ institutions; G-SIBs = global\ systemically\ important\ banks; \\ LSIs = less\ significant\ institutions$ 

a. The total for SIs is adjusted to avoid double counting of significant subsidiaries owned by euro-SIs in Slovakia and Portugal.

*Source:* Author's calculations based on ECB (2016b) and Schoenmaker and Véron (2016). Assets are as of end-2015.

headquartered outside of the euro area.<sup>3</sup> Another distinction is between euro-SIs that the Financial Stability Board (FSB) lists as "global systemically important banks" (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 labeled 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.<sup>4</sup> The total adds up to €23 trillion, as shown in table 1, which also shows the relative importance of LSIs compared with SIs in the euro area system.<sup>5</sup> Table 1 illustrates the dominance of SIs<sup>6</sup> and that

Slovakian banks owned, respectively, by Italy's Intesa Sanpaolo and Austria's Erste Bank and Raiffeisen Bank International euro-SI assets are almost equally divided between the 8 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 shareholders in listed companies to report when they cross certain thresholds of ownership. Information about significant shareholdings in listed banks is therefore generally available and reliable. 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 a handful of cooperative or family-owned groups for which only the broad outlines of ownership structures could be identified.

To summarize the results, banks fall into six broad governance arrangements:<sup>8</sup>

<sup>3.</sup> 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).

<sup>4.</sup> 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.

<sup>5.</sup> Data on total assets of LSIs are 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 a 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.)

<sup>6.</sup> 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, may be partly due to changes in the ECB's measurement policies or data quality issues.

<sup>7.</sup> Information on shareholdings in publicly listed banks presented in this Policy Brief was retrieved from www.4-traders. com, consulted between March 25 and April 2, 2017.

<sup>8.</sup> This analysis refines and expands on table 4 in Schoenmaker and Véron (2016).

- "Dispersed" governance: comprises 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.9
- "Minority influence": comprises groups in which no single shareholder has majority control but one or several minority shareholders have significant leverage on the bank's direction and strategy. This category covers a variety of situations and includes both publicly listed groups and unlisted ones whose ownership is shared among several minority shareholders. Depending on the case, the influential minority shareholder(s) may be from the private sector, the public sector, or a not-forprofit entity.
- "Private control": comprises 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 across cases, which include individuals, families, foundations, investment funds, and insurance or industrial groups.
- **"Cooperative" governance**: comprises 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 centralization 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 of the eight euro area G-SIBs are cooperatives).<sup>10</sup>
- "Public sector" governance: comprises banks that have been created by (local or national) governments and/ or fulfill a public interest, noncommercial objective. These include national policy banks in some member states, dedicated to funding local government activities (e.g., 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

"Nationalized" governance: comprises banks that are currently under government control after being rescued since the financial crisis. In most cases, and unlike public-sector banks, governments plan to privatize 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 publicly 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, Credit Agricole has a cooperative governance structure based on 39 regional cooperative banks, but the parent entity, Credit 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 nationalized banks are fully owned by their respective national governments, e.g., Belgium's Belfius or Portugal's Novo Banco,11 but others are publicly listed with the government as a majority shareholder, e.g., 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 labeled "dispersed," except in cases where several significant shareholders (including at least one with shares above 8 percent) are likely to act in concert. <sup>12</sup> 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 may also be subject to more subtle forms of control. A growing literature suggests that passive index funds<sup>13</sup> that hold significant ownership

<sup>(</sup>*Landesbanken*) and other public banks such as La Banque Postale in France or Caixa Geral de Depósitos in Portugal.

<sup>9.</sup> 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 Populare di Sondrio. See Valentina Za, "Pop Sondrio says court halts transformation into joint-stock Co," Reuters, December 16, 2016.

<sup>10.</sup> 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).

<sup>11.</sup> At the time of observation, the Portuguese government was in the process of selling Novo Banco.

<sup>12.</sup> 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, where a publicly disclosed shareholders' agreement covers 31 percent of total shares.

<sup>13.</sup> These are funds that invest in all stocks that participate

Table 2 Governance structures of euro-Sis

			As	sets
Governance structure	Number of banks	Percent of banks	Billions of euros	Percent 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
Nationalized	10	10.3	1,312	5.9
Total	97	100.0	22,118	100.0
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

SIs = significant institutions

Source: Author's calculations based on appendix A. Assets are as of end-2015.

stakes in several listed companies in the same sector may reduce competition among these companies (e.g., 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 percents 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 behavior is ongoing and may be relevant for banks in the "dispersed" category, even though the analysis presented here is agnostic about it.

Appendix A presents findings on each euro-SI. Table 2 summarizes the findings in terms of governance categories. It also indicates the split between publicly 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.<sup>14</sup>

Table 3 breaks down these categories by the 8 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 among governance categories is not strongly correlated to size (except for privately controlled banks, which tend to be significantly smaller than average).

If anything, data shown in tables 2 and 3 underestimate the influence of governments in the euro area banking sector. Beyond the "public sector" and "nationalized" categories, 9 banks representing €3,055 billion in assets have a government as their single largest minority shareholder.<sup>15</sup> An additional 8 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, namely Austria, Italy, and Spain).<sup>16</sup> Taking into account the fact that cooperative bank governance models are also often politicized, one can reasonably presume that there is some direct political interference in the governance of at least 64 percent of all euro-SIs, representing €13.5 trillion or 61 percent of total assets.<sup>17</sup>

in the composition of a given index, as opposed to "active" funds that select individual stocks for their expected performance.

<sup>14.</sup> 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.

<sup>15.</sup> 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.

<sup>16.</sup> These banks are, by decreasing order of total assets, Intesa Sanpaolo, CaixaBank, Erste Group, UBI Banca, Unicaja, Ibercaja, Kutxabank, and Liberbank.

<sup>17.</sup> These totals are obtained by adding the "cooperative" banks, "public sector" banks, "nationalized" banks, and the 17 (9+8) other groups specifically referred to above in the same paragraph.

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

	Share of	f G-SIBs	Shaı other e	
Governance structure	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
Nationalized	-	-	11.2	11.7
Total	100.0	100.0	100.0	100.0

SIs = significant institutions; G-SIBs = global systemically important banks

Source: Author's calculations based on appendix A. Assets are as of end-2015.

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. 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 Brief.

Unsurprisingly, these euro area findings mask significant diversity across individual member states. While not the main focus of this Policy Brief, table 4 shows the governance structures of euro-SIs by country. 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 labeled "dispersed" (e.g., UniCredit or Monte dei Paschi di Siena) would have been until recently in the "minority influence" or "private control" category, 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 nationalized soon); similarly, most Greek banks had been "nationalized" until 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,<sup>20</sup> and others may change ownership soon as well. Thus, table 4 does not display permanent structures of national banking systems, at least not for all member states.

### INTERNATIONAL PERSPECTIVE

This section compares the euro area's larger banks with banks of similar size in four "Anglo-Saxon" jurisdictions, namely 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).<sup>21</sup> This sample consists of 53 groups, as summarized

<sup>18.</sup> For example, UniCredit recently announced an overhaul of its governance 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*, April 17, 2017.

<sup>19.</sup> As a reminder, table 4, like other results in this Policy Brief, 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 jurisdiction. 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.

<sup>20.</sup> These are Allied Irish Banks, HSH Nordbank, Nova Ljubljanska Banka, Novo Banco, SNS Bank, expected to be at least partly privatized in 2017; Banca Popolare di Vicenza, Veneto Banca, and Monte dei Paschi di Siena, expected to be nationalized through a "precautionary recapitalization" process; Ibercaja and Unicaja, expected to be listed on the Spanish stock market; and Banco Mare Nostrum, expected to be merged with Bankia.

<sup>21.</sup> The exchange rate of US\$1.087 per euro used in *The Banker's* ranking is adopted here. Asset totals in the list are

Table 4 Governance structures of euro-SIs by country

	Total euro-SI							
Country	<b>assets</b> (billions of euros)	Dispersed	Minority influence	Private control	Cooperative	Public sector	Nationalized	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/average	22,118	15/44%	22/14%	14/3%	15/24%	21/10%	10/6%	97/100%

SIs = significant institutions

Source: Author's calculations based on appendix A. 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.

Table 5 Anglo-SIs

		As	sets
Country	Number of banks	Billions of euros	Percent 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

SIs = significant institutions

*Source:* Author's calculations based on The Banker (2016) and an exchange rate of US\$1.087 per euro. Assets are as of end-2015.

in table 5. (Coincidentally the two samples have about the same amount of aggregate assets.)

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

based on different accounting standards in different jurisdictions; no attempt has been made here to correct for the corresponding distortions. For an attempt to do so for G-SIBs, see Hoenig (2016).

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.<sup>22</sup> Otherwise, only five large euro-SIs<sup>23</sup> are missing from *The Banker*'s list, and they represent only 1.0 percent of aggregate euro-SI assets. Conversely, two

<sup>22.</sup> 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 United States, for example, only two state-owned banks appear to exist, Bank of North Dakota and Government Development Bank for Puerto Rico, and both have total assets well under the €30 billion threshold.

<sup>23.</sup> 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.

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

	Number	Euro-	SI assets		Anglo-	SI assets
Governance structure	of large euro-SIs	Billions of euros	Percent of total assets	Number of Anglo-Sis	Billions of euros	Percent of total assets
Dispersed	15	9,723	44.3	43	21,874	87.3
Minority influence	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
Nationalized	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

SIs = significant institutions

Source: Author's calculations based on appendices A and B. Assets are as of end-2015.

euro area groups<sup>24</sup> 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 the one 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 dominate in the United Kingdom and the United States as well. There are no public-sector banks, none under private control, and only one nationalized bank (Royal Bank of Scotland).<sup>25</sup> 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 summarizes the findings.<sup>26</sup>

#### **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 observed governance patterns would be a highly valuable historical analysis but is not attempted in this Policy Brief 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 Brief 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 member states.

Looking forward, the findings that most euro area banks governance structures are prone 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 observed 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 unlisted ones, 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

<sup>24.</sup> Germany's Wüstenrot & Württembergische and Italy's Mediolanum.

<sup>25.</sup> At the time of observation, the UK government had already sold almost all of its holdings in Lloyds Banking Group.

<sup>26.</sup> 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 ones 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), nationalized (5 percent)—altogether a picture very similar to that in table 6.

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 prioritize 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 prioritize profits may 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 observed 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 may resist calls for more capital for that reason.<sup>27</sup> 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 undercapitalization. In state-owned banks, their government shareholder is often constrained when they need additional capital, because of fiscal stress, the unpopularity of taxpaverfunded bailouts, and/or the EU state aid control framework. Listed banks with dispersed ownership have comparatively greater capital flexibility.
- Fourth, the politicization 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, lend more to preferred borrowers or sectors or to the government itself, and/or during

economic downturns (e.g., Sapienza 2004; Bertay, Demirgüç-Kunt, and Huizinga 2015; Gropp and Saadi 2015). This can in turn lead to detrimental tradeoffs in terms of risk taking and profitability. More straightforwardly, bank politicization 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 on banks that have more links to themselves through their 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).

As for possible macroeconomic benefits from banks owned or influenced by the state, evidence for these is mixed at best. Even when lending by such banks is less procyclical (or in some cases, countercyclical)—i.e., 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).<sup>28</sup>

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 privatize banks in public ownership, including those nationalized during the crisis, and to sell government-held minority stakes, beyond any obligations that member states may 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.

<sup>27.</sup> 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.

<sup>28.</sup> A precrisis 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.

More generally, EU policymakers should avoid creating or maintaining any distortions against the dispersed-ownership model. A review of such distortions in the euro area is beyond the scope of this Policy Brief. 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.<sup>29</sup> But the prudential rulebook is still far from fully harmonized (ECB 2016a), and national prudential idiosyncrasies may linger that favor 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 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.<sup>30</sup> 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 the national and European level should identify and dismantle other aspects of policy, especially (but not limited to) tax arrangements, that may distort banking groups' structures and be unfavorable to listed ones with dispersed ownership. Some of these distortions may be significant.

None of these recommendations go against the organizing 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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<sup>29.</sup> 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*, October 10, 2016; and Case Study 1 on Monte dei Paschi di Siena in Transparency International EU (2017).

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Table A.1 Euro-SIs (significant institutions headquartered in the euro area)

Ultimate shareholder Stake Other shareholders	National government (Belgium) 10.2% BNPP Employee Stock Ownership Plan 3.7%	Cooperative Banks (France) 56.6% CA Employee Stock Ownership Plan 3.69%	Investment manager (New York) 6.0% C-Quadrat AM 3.04%; Deutsche AM 2.91%; Merrill Lynch 2.67%	Investment manager (Pennsylvania) 2.2% NBIM 1.79%; BlackRock 1.25%; Dodge & Cox 1.19%	Investment manager owned 6.6% Capital Group 2.98% by Société Générale	Cooperative bank (Paris region) 7.0% 50% owned by 20 Banques Populaires; 50% by 17 Caisses d'Epargne	National government (Abu Dhabi) 5.0% Capital Group 3.69%; Dodge & Cox 1.91%; Central Bank of Libya 1.57%	Investment manager (Wisconsin) 3.0% Vanguard 2.16%; UBS AM 1.59%; NBIM 1.52%	Investment manager (Pennsylvania) 2.2% Northern Cross 1.28%; BlackRock 1.24%; NBIM 1.24%	Cooperative bank (Eastern France) 53.2% CM Arkea 21.67%; CFCM N Europe 8.6%; CFCM Océan 6.79% (2011)	Regional foundation (Turin) 9.3% Fond.Cariplo 4.84%; Generali 3.41%; Fond.Cariparo 3.30%	Cooperative banks (Netherlands) n.a. 108 local cooperative banks; ownership breakdown not found	National government (Germany) 15.6% Capital Group 2.98%	Cooperative banks (Germany) n.a. Owned by 1,021 local cooperative banks; no public breakdown found	National government (Netherlands) 70.0% Henderson 3.51%; BlackRock 2.48%	Regional foundation (Catalonia) 40.0% Vanguard 1.18%	Cooperative (Belgium) 18.5% "Core shareholder syndicate"		40.5%	40.5% (Belgium) 50.0%	40.5% 50.0%	40.5% 50.0% 100.0%	40.5% 50.0% 100.0% 75.0%	40.5% 50.0% 100.0% 75.0% based) 7.3%
Largest shareholder Ultim	SFPI National gove	SAS rue La Boétie Cooperative B	BlackRock Fund Advisors Investment m	Vanguard Group Investment m.	Lyxor Int'l Asset Mgmt SAS Investment m. by Société Géi	Caisse d'Epargne d'Ile-de-France Cooperative b	Aabar Investments National gove	Artisan Partners LP	Vanguard Group	Caisse Fédérale de Crédit Mutuel	Compagnia di San Paolo Regional foun	n.a. Cooperative b	Government of Germany National gove	n.a. Cooperative b	NLFI National gove	Fundacion Bancaria CEPB	KBC Ancora SCA (majority-owned by CERA) Cooperative (E		Savings Banks Assocn of Baden-Württemberg Local governn (Baden-Württe		ssocn of Baden-Württemberg	n of Baden-Württemberg	kssocn of Baden-Württemberg varia	n of Baden-Württemberg
Governance	Dispersed	Cooperative	Dispersed	Dispersed	Dispersed	Cooperative	Dispersed	Dispersed	Dispersed	Cooperative	Minority influence	Cooperative	Minority influence	Cooperative	Nationalized	Minority influence	Minority influence		Public sector					
Assets (billions of euros)	1,994	1,699	1,629	1,340	1,334	1,167	860	842	750	707	929	029	533	498	390	385	252		234	234	234	230 230 216 216	230 230 219 216	230 219 216 209
Headquarters	Paris	Paris	Frankfurt	Madrid (Santander)	Paris	Paris	Milan	Amsterdam	Madrid (Bilbao)	Paris	Milan	Utrecht	Frankfurt	Frankfurt	Amsterdam	Barcelona	Antwerp	Chilthant	Junigan	Brussels	Brussels	Brussels Paris Munich	Brussels Paris Munich	Brussels Paris Munich Sabadell
Country	Æ	Æ	DE	ES	Æ	Æ	⊨	₹	ES	FR	⊨	N	DE	DE	¥	ES	BE	DE		BE	BE BE	B	8	BE FR ES
Banking group	BNP Paribas	Crédit Agricole	Deutsche Bank	Banco Santander	Société Générale	BPCE	UniCredit	NG	BBVA	Crédit Mutuel	Intesa Sanpaolo	Rabobank	Commerzbank	DZ Bank	ABN AMRO	CaixaBank	KBC	LBBW		Dexia	Dexia	Dexia La Banque Postale BavernI B	Dexia La Banque Postale BayernLB	Dexia La Banque Postale BayernLB Banco Sabadell

 Table A.1
 Euro-SIs (significant institutions headquartered in the euro area) (continued)

Banking group	Country	Headquarters	Assets (billions of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
Bankia	ES	Madrid (Valencia)	207	Nationalized	FROB	National government (Spain)	66.1%	NBIM 2.33%; privatization 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	Nationalized	SFPI	National government (Belgium)	100.0%	No decision to privatize
Landesbank Helaba	吕	Frankfurt	172	Public sector	Savings Banks Assocn of Hesse & Thuringia	Local governments (Hesse & Thuringia)	68.9%	States of Hesse (8%) & Thuringia (4%), 4 ither savings banks assocns.
Banco BPM	⊨	Milan	171	Dispersed	NBIM	National government (Norway)	3.2%	Dimensional 3.09%; Vanguard 2.0%; CPPIB 1.67%
Monte dei Paschi di Siena	⊨	Siena	169	Dispersed	Alken Asset Management Ltd.	Investment manager (London)	4.3%	Italian Govt 4.02%; AXA IM 3.17%; nationalization 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	ď	The Hague	150	Public sector	Government of the Netherlands	National government (Netherlands)	20.0%	Rest mostly held by provincial and municipal authorities
NRW.BANK	吕	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	ш	Dublin	131	Minority influence	Government of Ireland	National government (Ireland)	14.0%	Capital Group 6.64%; Fidelity 4.92%
OP Financial Group	ᇤ	Helsinki	125	Cooperative	OP Central Cooperative	Cooperative (Finland)	100.0%	Central cooperative owned by 180 local cooperative banks
VW Financial Services	ᆷ	Braunschweig	121	Private control	Volkswagen Group	Carmaker (Germany)	100.0%	
UBI Banca	⊨	Milan (Bergamo)	117	Dispersed	Fondazione CaRiCuneo	Regional foundation (Piedmont)	5.5%	Fond.Banca Monte Lombardia 4.81%; Silchester 4.73%
National Bank of Greece	8	Athens	111	Minority influence	Hellenic Financial Stability Fund	National government (Greece)	38.9%	Vanguard 1.98%
HSH Nordbank	ᆷ	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	ш	Dublin	103	Nationalized	Government of Ireland	National government (Ireland)	%8'66	Privatization expected to start in 2017
Caixa Geral de Depósitos	Ы	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	뉟	The Hague	16	Public sector	Government of the Netherlands	National government (Netherlands)	17.0%	Rest almost entirely held by 22 local water authorities
Piraeus Bank	g.	Athens	88	Minority influence	Hellenic Financial Stability Fund	National government (Greece)	%0.92	Paulson & Co 9.13%; Alden 4.79%
								(2010;+000)40+)

(table continues)

 Table A.1 Euro-SIs (significant institutions headquartered in the euro area)
 (continued)

Banking group Cou	Country	Headquarters	Assets (billions of euros)	Governance	Larqest shareholder	Ultimate shareholder	Stake	Other shareholders
naft ope		Neuharden-berg	87	Public sector	inanzgruppe	Local governments (Germany)	100.0%	RVG owned by savings banks; no ownership breakdown found
SFIL	£	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 G	GR ,	Athens	74	Minority influence	Fairfax Financial	Investment group (Canada)	16.9%	Capital Group 6.33%; Vanguard 2.56%
L-Bank D	DE	Karlsruhe	73	Public sector	State of Baden-Württemberg	Regional government (Baden-Württemberg)	Public	
Mediobanca	_ _	Milan	17	Minority influence	UniCredit Group	see UniCredit	8.5%	Bolloré 7.87%; Mediolanum 3.33%; shareholder agreement covers 31%
Alpha Bank G	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	29	Minority influence	Government of Germany	National government (Germany)	20.0%	MainFirst Bank IM 4.99%
SNS Bank	- Z	Utrecht	63	Nationalized	SNS REAAL	National government (Netherlands)	100.0%	Privatization possibly in 2017
Banca Pop. dell'Emilia Romagna	⊨	Modena	61	Dispersed	UnipolSai Assicurazioni	Insurer (Italy)	2.0%	Dimensional 4.34%; Fondazione Sardegna 3.02%; NBIM 2.96%
Unicaja	ES	Malaga	09	Private control	Unicaja Foundation	Regional foundation (Andalusia)	86.7%	Rest held by institutional investors; IPO forthcoming
lbercaja E	ES	Zaragoza	59	Private control	lbercaja 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	28	Private control	Bilbao Bizkaia Kutxa Foundation	Regional foundation (Biscaye)	57.0%	Kutxa (San Sebastian) 32%; Caja Vital 11%
Novo Banco	PT	Lisbon	28	Nationalized	Portuguese Resolution Fund	National government (Portugal)	100.0%	Privatization expected in 2017
Aareal Bank		Wiesbaden	52	Dispersed	Versorgung Bund und Länder	National pension fund (Germany)	6.5%	Deka Inv. 5.58%; Dimensional 4.52%
Iccrea Holding	_ ⊨	Rome	20	Cooperative	Banca di Credito Cooperativo di Roma	Cooperative bank (Rome)	4.0%	Rest held by 327 other local cooperatives and other shareholders
HASPA	_ 当	Hamburg	46	Public sector	Haspa Finanzholding (public entity)	Regional government (Hamburg)	100.0%	
BpiFrance	£	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	21	Luxembourg	43	Public sector	Government of Luxembourg	National government (Luxembourg)	Public	
AXA Bank B	BE	Brussels	43	Private control	AXA Group	Insurer (France)	100.0%	
СВН	Æ	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%

 Table A.1
 Euro-SIs (significant institutions headquartered in the euro area) (continued)

	Country	Assets (billions Headquarters of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
Crédito         ES         Madrid         40         Private control           Crédito         ES         Madrid         40         Cooperative           Operativo         Argenta Bank         BE         Antwerp         39         Private control           eenbank         TI         Reggio Emilia         37         Minority influence           eindesbank         AT         Linz         37         Private control           reich         FR         Paris         36         Public sector           reich         AT         Vienna         36         Private control           reich         AT         Vienna         36         Private control           reich         AT         Vienna         36         Private control           reich         Luxembourg         33         Private control           reich         Luxembourg         33         Private control           reich         Luxembourg         33	ES		Nationalized	FROB	National government (Spain)	%0'59	Rest mostly held by local foundations; in process of merger into Bankia
Crédito ES Madrid 40 Cooperative operativo Agenta Bank BE Antwerp 39 Private control er Munich 38 Cooperative cenbank IT Reggio Emilia 37 Minority influence raich AT Linz 37 Cooperative rreich FR Paris 37 Private control rançaise de FR Paris 36 Cooperative polare di Sondrio IT Sondrio 36 Dispersed Disseldorf 36 Cooperative control orius (MuniFin) FI Helsinki 34 Private control ranca IT Montebelluna 33 Private control rige IT Genoa 30 Minority influence rt TSB IE Dublin 29 Nationalized Holding AT Vienna 29 Nationalized Cholding AT Vienna 28 Cooperative Cooperative Cooperative Sprus CY Nicosia 23 Minority influence rive Central Bank CY Nicosia 10 Minority influence 11 Minority influence 12 Minority influence 13 Minority influence 14 Minority influence 15 Minority influence 15 Minority influence 15 Minority influence 16 Minority influence 17 Minority influence 18 Minority influence 18 Minority influence 19 Minority influence 19 Minority influence 19 Minority influence 10 Minorit	⊨		Private control	Atlante fund	UniCredit, Intesa SP (23% each) & others	99.3%	Nationalization possible in 2017
Argenta Bank     BE     Antwerp     39     Private control       er bank     PE     Munich     38     Cooperative       enbank     TI     Reggio Emilia     37     Minority influence       landesbank     AT     Linz     37     Cooperative       reich     FR     Paris     36     Public sector       rement     DE     Düsseldorf     36     Cooperative       rançaise de     FR     Paris     36     Public sector       rancaise de     FR     Paris     36     Dispersed       polare di Sondrio     TT     Sondrio     36     Dispersed       priva Sacher     AT     Vienna     36     Private control       poitus (MuniFin)     FI     Helsinki     34     Public sector       capital / BlL     LU     Luxembourg     33     Private control       anca     IT     Montebelluna     33     Private control       rit TSB     IE     Dublin     29     Nationalized       r-Holding     AT     Vienna     28     Cooperative       ryer     Nicosia     13     Minority influence       rive Central Bank     CY     Nicosia     14     Nationalized       rive Central alletta			Cooperative	Cajamar Cooperative Credit Group	Cooperative (Spain)	85.5%	Private investors 4.58%; other cooperatives 9.79%
er Munich 38 Cooperative senbank miliano IT Reggio Emilia 37 Minority influence landesbank AT Linz 37 Cooperative rreich armediae FR Paris 37 Private control rançaise de FR Paris 36 Public sector sement DE Disseldorf 36 Cooperative polare di Sondrio IT Sondrio 36 Dispersed oritus (MuniFin) FI Helsinki 34 Public sector Capital / BIL LU Luxembourg 33 Private control anca IT Montebelluna 33 Private control rige IT Genoa 30 Minority influence rt TSB IE Dublin 29 Nationalized Holding AT Vienna 28 Cooperative Cyprus CY Nicosia 12 Minority influence rive Central Bank CY Nicosia 12 Public sector 31 Ljubljana 12 Public sector 31 Minority influence 13 Ljubljana 12 Public sector 31 Minority influence 31 Ljubljana 10 Minority influence 31 Ljubljana 11 M	BE		Private control	Van Rompuy family	Family (Belgium)	85.0%	No ownership breakdown found
landesbank AT Linz 37 Minority influence landesbank AT Linz 37 Cooperative rreich   Le FR Paris 37 Private control   Le FR Paris 36 Public sector   DE Düsseldorf 36 Cooperative   DE Düsseldorf 36 Cooperative   DE Düsseldorf 36 Cooperative   DI Sondrio 37 Private control   DI Sondrio 37 Private control   DI Sondrio 38 Dispersed   DI Sondrio 38 Dispersed   DI Sondrio 38 Dispersed   DI Cooperative   DI Cooperative			Cooperative	>75,000 individual members	Cooperative (Bavaria)	Coop.	Affiliated to Bavarian Cooperatives Association (GVB)
landesbank AT Linz 37 Cooperative rreich  Le FR Paris 37 Private control rançaise de FR Paris 36 Public sector ement DE Düsseldorf 36 Cooperative polare di Sondrio IT Sondrio 36 Dispersed oitus (MuniFin) FI Helsinki 34 Public sector anca IT Montebelluna 33 Private control rige IT Genoa 30 Minority influence ot TSB IE Dublin 29 Nationalized -Holding AT Vienna 28 Cooperative yprus CY Nicosia 23 Minority influence ive Central Bank CY Nicosia 14 Nationalized 19 Public sector 10 Nationalized 11 Genoa 30 Minority influence 11 Genoa 31 Minority influence 12 Public sector 13 Minority influence 14 Nationalized 15 Public sector 16 Naletta 10 Minority influence			Minority influence	Credito Emiliano Holding	Local interests incl. 29% Cofimar property group	75.6%	FIL Investments 1.28%
LeFRParis37Private controlPementBEDüsseldorf36Public sectorPolare di SondrioTSondrio36Public sectorPolare di SondrioTSondrio36Private controlPria SacherATVienna36Private controlPoitus (MuniFin)FIHelsinki33Private controlPria SacherTTMontebelluna33Private controlPria SacherTTGenoa30Minority influencePria SacherTTGenoa30Minority influencePria SacherTTVienna29NationalizedPrivate Central BankCYNicosia23Minority influencePolanska BankaSILjubljana12Public sectorPublictaMTValletta10Minority influence	AT	37	Cooperative	Local (upper Austrian) Raiffeisen banks	Cooperative banks (Upper Austria)	n.a.	Detailed ownership breakdown not found in publicly available sources
rançaise de FR Paris 36 Public sector bement DE Düsseldorf 36 Cooperative polare di Sondrio IT Sondrio 36 Dispersed polare di Sondrio IT Sondrio 36 Private control oitus (MuniFin) FI Helsinki 34 Private control anca IT Montebelluna 33 Private control rige IT Genoa 30 Minority influence rige IT Genoa 29 Nationalized Holding AT Vienna 28 Cooperative ive Central Bank CY Nicosia 23 Minority influence 31 Minority influence 32 Minority influence 33 Dispersed 34 Minority influence 35 Mi		37	Private control	Renault SAS	Carmaker (France)	100.0%	
polare di Sondrio     1T     Sondrio     36     Cooperative       pria Sacher     AT     Vienna     36     Private control       oitus (MuniFin)     FI     Helsinki     34     Prublic sector       capital / BlL     LU     Luxembourg     33     Private control       anca     IT     Genoa     30     Minority influence       rige     IT     Genoa     30     Nationalized       rHolding     AT     Vienna     29     Nationalized       rHolding     AT     Vienna     28     Cooperative       yprus     CY     Nicosia     23     Minority influence       ive Central Bank     CY     Nicosia     14     Nationalized       oljanska Banka     SI     Ljubljana     12     Public sector       alletta     MT     Valletta     10     Minority influence		36	Public sector	Government of France	National government (France)	100.0%	
IT         Sondrio         36         Dispersed           AT         Vienna         36         Private control           FI         Helsinki         34         Public sector           LU         Luxembourg         33         Private control           IT         Genoa         30         Minority influence           IE         Dublin         29         Nationalized           AT         Vienna         28         Cooperative           CY         Nicosia         23         Minority influence           CY         Nicosia         14         Nationalized           SI         Ljubljana         12         Public sector           MT         Valletta         10         Minority influence			Cooperative	>100,000 health professionals	Cooperative (Germany)	Coop.	Affiliated to BVR pillar of German cooperative banks
AT       Vienna       36       Private control         FI       Helsinki       34       Public sector         LU       Luxembourg       33       Private control         IT       Genoa       30       Minority influence         IF       Dublin       29       Nationalized         AT       Vienna       28       Cooperative         CY       Nicosia       23       Minority influence         CY       Nicosia       14       Nationalized         SI       Ljubljana       12       Public sector         MI       Valletta       10       Minority influence	⊨		Dispersed	NBIM	National government (Norway)	2.6%	Dimensional 2.57%; Amber Capital 2.05%; Vanguard 2.01%
FI       Helsinki       34       Public sector         LU       Luxembourg       33       Private control         IT       Montebelluna       33       Private control         IT       Genoa       30       Minority influence         IE       Dublin       29       Nationalized         AT       Vienna       28       Cooperative         CY       Nicosia       23       Minority influence         CY       Nicosia       14       Nationalized         SI       Ljubljana       12       Public sector         MT       Valletta       10       Minority influence			Private control	Cerberus Capital Management	Private equity fund (New York)	52.1%	GoldenTree Asset Management 39.77%
LU Luxembourg 33 Private control TT Montebelluna 33 Private control TT Genoa 30 Minority influence IE Dublin 29 Nationalized AT Vienna 28 Cooperative CY Nicosia 23 Minority influence CY Nicosia 14 Nationalized SI Ljubljana 12 Public sector MT Valletta 10 Minority influence	Е		Public sector	Keva pension agency	Public employee pension fund (Finland)	30.7%	Finnish Govt 16%; rest held by municipalities
IT     Montebelluna     33     Private control       IT     Genoa     30     Minority influence       IE     Dublin     29     Nationalized       AT     Vienna     28     Cooperative       CY     Nicosia     23     Minority influence       CY     Nicosia     14     Nationalized       SI     Ljubljana     12     Public sector       MT     Valletta     10     Minority influence	2		Private control	Al-Thani Family	Ruling family (Qatar)	100.0%	
IT     Genoa     30     Minority influence       IE     Dublin     29     Nationalized       AT     Vienna     28     Cooperative       CY     Nicosia     23     Minority influence       CY     Nicosia     14     Nationalized       SI     Ljubljana     12     Public sector       MT     Valletta     10     Minority influence			Private control	Atlante fund	UniCredit, Intesa SP (23% each) & others	%9'.26	Nationalization possible in 2017
IE     Dublin     29     Nationalized       AT     Vienna     28     Cooperative       CY     Nicosia     23     Minority influence       CY     Nicosia     14     Nationalized       SI     Ljubljana     12     Public sector       MT     Valletta     10     Minority influence			Minority influence	Malacalza Family	Family (Italy)	17.6%	Ansbury Inv. 6%; Toscafund AM 4.53%; NBIM 1.98%
AT Vienna 28 Cooperative  CY Nicosia 23 Minority influence  CY Nicosia 14 Nationalized  SI Ljubljana 12 Public sector  MT Valletta 10 Minority influence			Nationalized	Government of Ireland	National government (Ireland)	74.9%	Janus Capital 3.87%
CY Nicosia 23 Minority influence CY Nicosia 14 Nationalized SI Ljubljana 12 Public sector MT Valletta 10 Minority influence			Cooperative	Local (lower Austrian) Raiffeisen banks	Cooperative banks (Lower Austria)	n.a.	Detailed ownership breakdown not found in publicly available sources
CY Nicosia 14 Nationalized  SI Ljubljana 12 Public sector  MT Valletta 10 Minority influence			Minority influence	Lamesa Holding (Renova Group)	Investment group (Russia)	%6.6	Cyprus Pop Bank 9.6%; TD AM 5.2%; EBRD 5%
a Banka SI Ljubljana 12 Public sector MT Valletta 10 Minority influence	Շ		Nationalized	Government of Cyprus	National government (Rep. of Cyprus)	99.5%	21.88% through Recap.Fund; privatization scheduled to start 2018
MT Valletta 10 Minority influence	IS		Public sector	Government of Slovenia	National government (Slovenia)	100.0%	Privatization expected in 2017
			Minority influence	Government of Malta	National government (Malta)	23.4%	UniCredit 13.75%
Volksbank Wien AT Vienna 10 Cooperative Government of Aust			Cooperative	Government of Austria	National government (Austria)	25.0%	Rest overwhelmingly owned by local cooperative banks

 Table A.1 Euro-SIs (significant institutions headquartered in the euro area) (continued)

			Assets					
Banking group	Country	Headquarters	(billions of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
Hellenic Bank	7	CY Nicosia	7	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	9	Private control	Controlling families	Families (Belgium)	70.0%	Rest held by management, staff, partners and others
ABLV Bank	ΓΛ	Riga	'n	Minority influence	Mr. Ernest Bernis	Individual (Latvia)	43.0%	Mr Oleg Fil 43%; rest partly held by management
Abanka	S	Ljubljana	4	Public sector	Government of Slovenia	National government (Slovenia)	100.0%	Privatization expected by 2019
Nova Kreditna Banka Maribor	S	Maribor	4	Private control	Apollo Global Management LLC	Private equity fund (New York)	%0.08	EBRD 20%
Mediterranean Bank	MT	MT Valletta	3	Private control	AnaCap Financial Partners LLP	Private equity fund (London)	Majority	Majority Rest held by bank management

Sources: ECB (2016c); Schoenmaker and Véron (2016); The Banker (2016); 4-traders.com; and corporate and media websites. More details available at https://piie.com/system/files/documents/pb17-18.xlsx.

Table B.1 Anglo-SIs (significant institutions headquartered in Australia, Canada, the United Kingdom, and the United States)

			F		- C	(22,22,22,22,22,22,22,22,22,22,22,22,22,		
Banking group	Country	Headquarters	<b>Assets</b> (billions of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
HSBC	¥	Lol	2,217	Dispersed	Legal & General	Insurer (UK)	2.8%	Vanguard 2.6%
JP Morgan Chase	SN	New York NY	2,163	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%2.9	SSgA Funds Mgmt 4.73%
Bank of America	SN	Charlotte NC	1,976	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.3%	SSgA FM 4.63%; BlackRock 4.16%
Wells Fargo	NS	San Francisco CA	1,645	Dispersed	Berkshire Hathaway	Investment group (Nebraska)	%9.6	Vanguard 5.99%; SSgA 4.22%
Citigroup	NS	New York NY	1,593	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.5%	SSgA FM 4.83%; BlackRock 4.29%
Barclays	¥	London	1,538	Dispersed	Qatar Holding (QIA)	National government (Qatar)	%0.9	Capital Group 4.63%; BlackRock 3.90%
RBS	ž	Edinburgh	1,120	Nationalized	HM Treasury	National government (UK)	71.3%	Artisan Partners 2.42%
Lloyds Banking Group	Ϋ́	London	1,108	Dispersed	NBIM	National government (Norway)	3.0%	HM Treasury 2.95%; BlackRock 2.93%
Goldman Sachs	ns	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)	5	Toronto	776	Dispersed	RBC Global Asset Management	Investment manager (Canada)	6.2%	CIBC 3.93%; BMO AM 3.68%
Royal Bank of Canada (RBC)	5	Toronto (Montreal)	754	Dispersed	TD Asset Management	Investment manager (Canada)	2.0%	CIBC World Markets 3.74%; BMO AM 3.70%
Morgan Stanley	ns	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	5	Toronto	629	Dispersed	RBC Global Asset Management	Investment manager (Canada)	2.9%	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	ž	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)	%2'9	RBC GAM 6.17%; CIBC WM 4.11%
US Bancorp	SN	Minneapolis MN	388	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.9%	Berkshire Hathaway IM 5.02%; SSgA FM 4.40%
BNY Mellon	NS	New York NY	362	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	6.2%	T.Rowe Price 5.61%
PNC Financial Services	SN	Pittsburgh PA	330	Dispersed	Wellington Management	Investment manager (Boston)	8.4%	Vanguard 6.73%; SSgA 4.93%; BlackRock 4.12%
CIBC	5	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	SN	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	ž	Swindon	265	Cooperative	Nationwide Mutual Insurance Company	Cooperative (UK)	100.0%	Over 14 million cooperative members of NMIC
								(table continues)

(table continues)

Table B.1 Anglo-SIs (significant institutions headquartered in Australia, Canada, the United Kingdom, and the United States) (continued)

			Assets					
Banking group	Country	Headquarters	(billions of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
State Street	SN	Boston MA	226	Dispersed	T. Rowe Price Associates	Investment manager (Baltimore)	%8.6	Massachusetts Fin. Services 8.38%
BB&T Corp	NS	Winston-Salem NC	193	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%5'9	SSgA 4.96%; BlackRock 4.42%; Dodge & Cox 2.62%
SunTrust Banks	Sn	Atlanta GA	176	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%6.9	SSgA 5.44%; Fidelity 5.32%; BlackRock 4.92%
Desjardins Group	S	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	SN	New York NY	148	Minority influence	Berkshire Hathaway	Investment group (Nebraska)	16.8%	Vanguard 5.41%; SSgA 4.40%; BlackRock 3.51%
Ally Financial	Sn	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	Sn	Cincinnati OH	130	Dispersed	T. Rowe Price Associates	Investment manager (Baltimore)	8.0%	Vanguard 7.41%; SSgA 5.72%; Invesco 5.37%
Regions Financial	NS	Birmingham AL	116	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	10.8%	SSgA 6.07%; Fidelity 5.99%; BlackRock 4.81%
M&T Bank	Sn	Buffalo NY	113	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%0.6	Fidelity 6.11%; SSgA 5.32%; BlackRock 4.50%
Northern Trust	SN	Chicago IL	107	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	2.9%	Northern Trust Investments 5.70%; Wellington Mgmt 5.64%
KeyCorp	Sn	Cleveland OH	88	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%9.6	SSgA 5.55%; BlackRock 4.67%; T.Rowe Price 3.74%
Discover Financial	Sn	Riverwoods IL	80	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%5'9	SSgA 5.49%; Boston Partners Global Investors 4.31%
Comerica	Sn	Detroit MI	99	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.1%	SSgA 5.15%; BlackRock 4.68%; Fidelity 4.26%
Huntington Bankshares	Sn	Columbus OH	9	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	9.5%	Fidelity 7.04%; SSgA 5.89%; BlackRock 4.67%
CIT Group	Sn	New York NY	62	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	7.7%	Capital Group 7.55%; First Pacific Advisors 6.75%
Zions Bancorporation	SN	Salt Lake City UT	55	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	%2'6	Invesco 6.69%; SSgA 6.17%; BlackRock 4.58%
Yorkshire Building Society	ž	Bradford	52	Cooperative	3.5 million members	Cooperative (Yorkshire)	Coop.	
Coventry Building Society	ž	Coventry	47	Cooperative	1.8 million members	Cooperative (Yorkshire)	Coop.	
New York Community Bancorp	SN	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%

Table B.1 Anglo-SIs (significant institutions headquartered in Australia, Canada, the United Kingdom, and the United States) (continued)

	,		<b>Assets</b> (billions		;			:
Banking group	Country	Headquarters	of euros)	Governance	Largest shareholder	Ultimate shareholder	Stake	Other shareholders
Virgin Money	ž	Newcastle upon Tyne	42	42 Minority influence Mr. Richard Branson	Mr. Richard Branson	Individual (UK)	34.9%	Standard Life Investments 8.56%; Kames Capital 4.47%
SVB Financial Group	NS	Santa Clara CA	14	Dispersed	Vanguard Group	Investment manager (Pennsylvania)	7.5%	BlackRock 7.05%; Harding Loevner 5.14%
Cooperative Bank	Ϋ́	Manchester	40	Minority influence	Minority influence The Co-operative Group	Cooperative (UK)	20.0%	Rest held by former bondholders following 2014 restructuring
People's United Financial	Sn	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	ď	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); 4-traders.com; and corporate and media websites. More details available at https://piie.com/system/files/documents/pb17-18.xlsx.