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IN-DEPTH ANALYSIS

The different legal and operational structures of banking groups in the euro area, and their impact on banks' resolvability

External author: **Willem Pieter de Groen**
Centre for European Policy Studies

Provided at the request of the
Economic and Monetary Affairs Committee

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Provided in advance of the public hearing
with the Chair of the Single Resolution Board
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Abstract

The Single Resolution Mechanism, which started in January 2016, must ensure that even the largest, most interconnected and complex bank in the euro area can fail. One critical element to make this feasible is enhancing the resolvability of banks. Systemic banking groups are in general highly complex institutions composed of many different legal entities that are interconnected not only in a juridical sense but also operationally and financially. To carry out this analysis, the author assessed the 125 banks that were under the direct supervision of the European Central Bank as of May 2016, of which almost three-quarters are internationally active and more than a third of which are owned or controlled by one or more other banks. This paper looks at the critical elements in the resolvability of these internationally active and bank-owned banking groups and reaches two main findings. First, resolution authorities need to introduce closer coordination and cooperation in order to lower the costs of resolution (e.g. bail-in costs and negative financial stability effects). Secondly, decision-makers within bank-owned banking groups need to change their system of governance to allow for orderly resolution (e.g. to allow prompt capital and asset transfers for loss absorption in resolution).

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ABOUT THE EDITOR

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LIST OF ABBREVIATIONS

BRA	Branch
BRRD	Bank Recovery and Resolution Directive
CEPS	Centre for European Policy Studies
CI	Credit Institution
CMG	(Global) Crisis management group
DGS	Deposit Guarantee Scheme
DNB	De Nederlandsche Bank
ECB	European Central Bank
EEA	European Economic Area
EU	European Union
FDIC	Federal Deposit Insurance Corporation
FSB	Financial Stability Board
G-SIBs	Global systemically important banks
G-SIFIs	Global systemically important financial institutions
ICSD	Investor Compensation Scheme Directive
MPE	Multiple point of entry
MREL	Minimum requirement for own funds and eligible liabilities
NRA	National resolution authority
SPE	Single point of entry
SRB	Single Resolution Board
SRMR	Single Resolution Mechanism Regulation
SUB	Subsidiary
TLAC	Total loss-absorbing capacity
TOT	Total
US	United States

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EXECUTIVE SUMMARY

In the wake of the great financial crisis, authorities across the EU were forced to take many emergency measures and use vast amounts of public funds to stabilise the financial system. In response, the financial regulatory and supervisory framework has been revised and complemented with a recovery and resolution framework, which must ensure that failing banks can be resolved in an orderly fashion without resort to public funds.

Besides resolution itself, the newly established resolution authorities have a broad array of measures they can use to improve the resolvability of banks ex-ante. On the one hand, they can set a minimum level for the liabilities that can be bailed-in to cover the losses and recapitalise the bank in resolution. On the other hand, in the annual resolution, planning process, they can determine the intended resolution strategy as well as try to address the obstacles to reduce the costs of resolution.

The European banking sector is highly diverse and complex. Banks conduct, for instance, different activities (e.g. distinguished by business model and geographical reach), which are organised in various ways (e.g. operationally, legally and in terms of ownership structures). These differences have implications for the resolvability of the banks. Considering the 125 banks under the direct supervision of the European Central Bank (ECB), this analysis focuses on two particular aspects relevant to resolution, namely internationalisation and ownership.

The resolution authorities can approach resolution at group level (single point of entry – SPE) or also at subsidiary (multiple point of entry – MPE) level. Since most banking groups are operationally and financially integrated, the SPE approach is likely to become the preferred approach for most banks. Nevertheless, this will require international coordination and cooperation to avoid negative spillovers, which increase the costs of resolution and fuel financial instability. The large majority of the banks examined in this study (70) conduct international activities and/or are subsidiaries of a non-euro area-based banking group (25). These banks predominantly conduct international banking activities using subsidiaries as well as branches. The subsidiaries are the responsibility of the host-country's resolution authorities, which are likely, in the absence of a coordinated approach, to use whatever measures are available to them to restrict capital outflows and the transfer of assets, which may weaken the financial position of the parent entity and the bank as a whole. This territorial approach to subsidiaries may force banks that follow a SPE strategy to adopt a hybrid strategy, with a SPE strategy of the overall group and a MPE strategy for specific subsidiaries. Although the branches operate in general under the responsibility of the home-country resolution authority, the host-country authorities still have the possibility to limit the transfer of assets. The US authorities, for example, are likely to follow a territorial approach to most of the 28 banks that have branch operations in the country, which means in practice that the assets of the branch will be ring-fenced and liquidated to pay back the non-affiliated creditors. The approach that will be taken inside the banking union as well as other EU member states is currently unclear.

There are also differences in the ownership structures. A substantial minority of the parent institutions is owned either by banks (44) or by public bodies (28). Since the latter primarily face political risks and raise fewer issues for resolvability per se, the focus has been on banks of which the central institution is owned by multiple other banks. These banks (19) with dispersed ownership have various kinds of structures, but to a certain degree they often rely operationally and financially on the central institution. The continuity of these activities in resolution are thus important to allow the most of the owning banks that are individually less significant, but collectively systemic, to continue operating. Moreover, due to the decentralised structure of the consolidated banking groups, in which assets and capital are fragmented across the group, the resolution authority might have to demand additional measures to enable the swift transfer of assets and capital in case of resolution to cover the losses.

Besides the aspects studied in the paper, the resolution authorities also need access to other measures to ensure the operational continuity of banks in resolution. In Europe, a detailed assessment of these legal and operational structures as well as non-bank-related activities in the context of resolvability is more complicated for third parties, such as investors and analysts. Unlike in the US, there is no public summary of the resolution plan providing a brief overview of the critical entities nor a high-level resolution strategy. This oversight might increase the uncertainty among creditors in case of potential resolution. More transparency would allow them to better assess the risk profile of their exposures.

1. INTRODUCTION¹

This paper was requested by the European Parliament under the supervision of its Economic Governance Support Unit.

In the aftermath of the 2007-09 global financial crisis and the 2010-12 eurozone debt crisis, banking legislation and supervision in the European Union have been significantly changed. These changes aim to prevent the need arising again for governments to take emergency measures and provide large amounts of public funds to stabilise the financial and in particular the banking system.² The former framework, which focused on preventing banks from failing, has been strengthened and extended in order to allow banks to fail (Huertas, 2014). In Europe the resolution mechanism has been arranged in the Bank Recovery and Resolution Directive (BRRD) and the Single Resolution Mechanism Regulation (SRMR), which are complemented by global arrangements for global systemically important financial institutions (G-SIFIs) at FSB level (2011).

Orderly resolution without disruption of the financial stability and material risk to the government and taxpayers is one of the preconditions to allow banks to fail safely (DNB, 2015). To reach this objective the BRRD requires each bank to prepare a recovery plan, which is assessed by the competent authority. The recovery plan foresees the approach and measures that the bank will take at the moment that its finances deteriorate. When these measures prove insufficient and the bank fails to meet certain performance criteria, the competent authorities are allowed to use their powers to order banks to implement measures to prevent the bank's finances from deteriorating further. The authorities can, for example, order the bank to change its legal and/or operational structure, business strategy or to negotiate a debt restructuring with creditors (Huertas, 2016).

If the authorities expect that the private solution is unlikely to be successful, they can decide to resolve the bank. The national resolution authorities (NRAs) in the different member states and the Single Resolution Board (SRB) for systemic and cross-border banks in the euro area have a broad array of measures they can take when they deem that liquidation under normal insolvency procedures is not possible. The resolution tools include the sale of assets/activities, the formation of a bridge bank and separation of assets to limit the loss given default and apply bail-in to wind down the losses on creditors and recapitalise the bank on the condition that they are not worse off than in the case of liquidation under the normal insolvency procedures. Under certain conditions the resolution authorities may, as a last resort, also use the funds collected from banks for resolution.

In order to be able to act promptly in case a bank needs to be resolved, the resolution authorities have at all times to be prepared for resolution, even when there is no crisis situation. The main preparatory work consists of setting minimum levels for the bail-in-able liabilities or so-called minimum requirement for own funds and eligible liabilities (MREL), drawing up resolution plans outlining the intended resolution strategy as well as identifying and addressing the impediments to resolution. In so doing, the resolution authorities need to take into account the following five objectives as defined in the BRRD and SRMR: i) ensure that critical functions are continued; ii) avoid causing significant disturbance to financial stability while maintaining market discipline; iii) minimise the usage of public funds; iv) protect depositors and investors covered by the DGS and ICSD Directives; and v) protect client funds and assets. Moreover, the resolution authorities aim to achieve these objectives against minimum costs and without destroying value (SRB, 2016).

¹ To supplement the limited public information available on the legal and operational structures, the author has conducted several interviews with representatives of banks working on recovery and resolution.

² The EU member states have approved in total €4.9 trillion (representing 35% of the EU's GDP in 2014) in recapitalisations, impaired asset measures, guarantees and other liquidity measures between 2008 and 2014. Of this amount, €1.9 trillion (14% of GDP) was actually used (European Commission, 2015).

The obstacles to resolution need to be addressed in the resolution planning process. This is the annual process that identifies the preferred resolution strategy and the impediments to resolvability. Hence, the objective is not to change all banks so that they can be liquidated under normal insolvency laws, but rather ensures that they can be resolved under the provisions of the resolution mechanism when necessary (DNB, 2015). Addressing the impediments before a potential resolution must avoid (significant) disturbance of financial stability and/or forcing resolution authorities to take more costly measures in case of distress. More specifically, the resolvability assessment is a two-step process in which the resolution authorities first design the strategy and identify impediments and then banks have the possibility to respond and propose measures to address the impediments afterwards. When the resolution authority deems the measures insufficient, it can force the banking groups to reduce the complexity.

The remainder of this analysis focuses on the resolvability assessment of the most systemic banking groups in the euro area. The European banking sector is diverse in ownership, activities, legal structure, etc. This diversity makes it inappropriate for the authorities to follow the same resolution strategy for all banks. The analysis focuses in particular on whether and how differences in the international activities and ownership structures form potential barriers to the orderly resolution of banks and how these can be overcome.

2. IMPACT OF INTERNATIONALISATION AND OWNERSHIP STRUCTURES ON RESOLVABILITY

This section describes the method used to define, and the data used to assess the impact of, internationalisation and ownership structures. Afterwards the main obstacles to resolving banks in an orderly fashion, depending on the different legal, operational and financial structures used for internationalisation and bank-owned banks, are discussed.

2.1 Data description

Although the resolution authorities will cover all banks, they are likely to focus more on the significantly important ones. It is still unclear which banks will be potentially subject to resolution/bail-in and which will be liquidated. The resolution authorities, however, are likely to make a distinction between three broad groups: i) small banks with simple structures that can be resolved under the normal insolvency procedures, ii) medium-sized banks with more complex structures that will most likely require the use of the resolution tools, including bail-in, to ensure an orderly wind-down; and iii) large banks with complex structures that are likely to require the use of both resolution tools and bail-in creditors for recapitalisation in order to continue operations. The banks identified as less significant by the supervisors are likely to fall more often into the first group, while the banks indicated as “significantly important” are more likely to be in the second or third group, for which resolution is the preferred option (Deloitte, 2015).

The focus of this analysis, therefore, is on significant European banks, for which resolution is the most likely option. More specifically, it focuses on the banks that were on 31 May 2016 under direct supervision of the European Central Bank (ECB). In total the banking supervisor deems 129 banks significant based on criteria such as size, domestic market dominance and cross-border activity. Four of the banks were excluded, bringing the total number of banking groups covered to 125. Hence, WZG Bank AG (DE) is no longer a stand-alone banking group after the merger into DZ Bank AG (DE) was completed on 1 August 2016. Moreover, the three Slovakian banks were twice included in the list, once as subsidiaries of other directly supervised banking groups and once as a stand-alone banking group. In order to avoid double counting the separate entries for Slovenská sporiteľňa (subsidiary of Erste Group Bank - AT), Tatra banka (Raiffeisen-Landesbanken-Holding - AT) and Všeobecná úverová banka (Intesa Sanpaolo - IT) were also excluded.

The types of ownership structure have been tailored for this analysis. There are various ways of classifying ownership in the banking sector, for example on the basis of the type of bank (e.g. commercial, cooperative, savings, etc.) as is done in Ayadi et al. (2014, 2016) or the role played within a banking group (e.g. credit institution, subsidiary, etc.) as is done in Lannoo (2014). This analysis tries to classify the parent institutions within the banking groups in a simplified form based on the legal and operational interdependencies with the owner as well as the intensity of the relationship with the owner.

Three broad indicators are used to classify the banks, as follows:

First, the legal and operational interdependencies between the banks and their owners are proxied by looking at the **type of shareholder**, i.e. banks, governments or other. A bank is considered to be either bank- or government-owned when more than 50% of the parent institution's shares are held by one or more banks or one or more public bodies, respectively. Moreover, the type of ownership gives an indication of whether there might be an operational interlinkage as well. These categories also refer to the main objectives of the resolution mechanism. The financial stability depends to a large extent on the interconnection between banks, while public finances are directly involved in the government-owned banks.

Second, the intensity of the relation between the bank and its owner is proxied by the level of **fragmentation in the shareholdings**, i.e. concentrated, dispersed, or alternative. When more than half of the shares of the parent institution are controlled by a single shareholder the ownership is considered to be concentrated and the relationship intense. Hence, when the owner is a majority shareholder, it is assumed that it is able to control the entity and thus consolidate it with the parent institution and other controlled subsidiaries. This is particularly important for commercial entities like banks. When there is no single shareholder or member that controls the bank, the ownership is considered to be dispersed and less intense. Moreover, there are also some banks that do not have shareholdings in one another but are nevertheless consolidated in a single group. In this case the banks mostly cover each other's liabilities through so-called cross-guarantees and/or joint-liability schemes. If banks do not hold shares in each other the ownership structure is classified as alternative, even when the parent institution is owned by other parties.

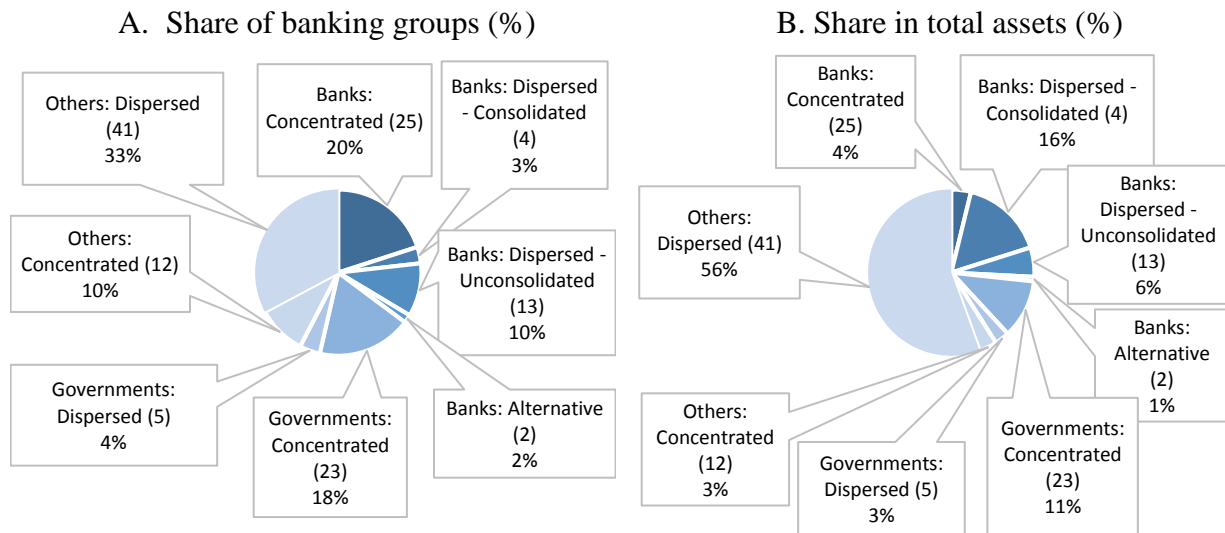
Third, the relationship within the dispersed banking groups can still be intense, in particular when these banks and their owners operate as a single banking group, which is proxied by whether the parent institution and the shareholding banks are **consolidated or unconsolidated**. The banking groups that are consolidated include, for example, some cooperative and savings banks groups with a parent institution (or a central institution in the case of cooperatives and savings banks) that is owned by many smaller local banks. These banks are allowed to consolidate their accounts on condition that the banks cover the each other's losses if one of the shareholding banks or the parent institution fails (i.e. cross-guarantee).

The ownership structures are determined by the information available in the latest published annual report or information on the corporate website as of 1 November 2016.

2.1.1 Ownership structures

When considering the distribution of the 125 directly supervised banks across the various ownership structures, there is a large diversity in the euro area banking sector. Figure 1 shows that the control of almost half of all the banking groups is in the hands of a single shareholder or public body. The other banking groups are predominately controlled by various shareholders and only in two exceptional cases are they connected through alternative arrangements. Moreover, more than a third of the banking groups (35%) are majority-owned by other banks and over one-fifth by governments (22%). Among the 17 parent institutions that are owned by multiple other banks (14%), only four operate as a consolidated banking group (3%). The largest single group among the ownership structures is the banking groups with other dispersed owners (33%). They even represent more than half of the banks in terms of assets. The banks owned by multiple banks and consolidated in a single group are also larger in terms of assets (16%). All the banks with concentrated ownership (i.e. banks, governments, others) are smaller in terms of assets. These types of banks generally have a narrower business model (e.g. financing of local governments, subsidiary of an internationally active bank, car financing).

Figure 1: Distribution of banks across ownership structures



Source: Author's formulation.

Note: The total assets of the banks are collected for 2015, unless no data was publically available. In the absence of public data for 2015, the figures for 2014 have been used, or when there was no available public data the total risk exposure from the ECB's comprehensive assessment has been used.

2.1.2 Internationalisation strategies

Furthermore, the analysis includes the internationalisation strategies of the 125 banking groups. Multiple sources have been combined to understand where the banks are active (i.e. domestic, other euro area countries, other European Union countries, and/or the United States) and whether they use subsidiaries and/or branches to conduct international activities. The domestic and euro area entities with a banking licence were obtained from the ECB's "List of significant supervised entities" on 31 May 2016. Both parent institutions and subsidiaries were matched with a CEPS-database on the ownership of credit institutions (i.e. banks) in the EU at the end of 2012 to obtain an indication of subsidiaries in the rest of the European Union. The ECB's "list of monetary financial institutions" published on 21 October 2016 has been used to obtain information on the number of branches in the European Union. Moreover, information on the subsidiaries and branches in the United States was obtained from the Federal Reserve's list of "U.S. Offices of Foreign Banking Organizations by Country" as of 30 June 2016. The US activities serve as a proxy for the activities outside the EU in general, since most European banks active outside the EU are active in the US. Overviews of the banks belonging to the concentrated and dispersed non-bank structures are shown in Annex 1.

Most other banks in the sample also conduct banking activities outside their home countries. The banks can themselves conduct business internationally, in broadly two ways. Hence, they can request a banking licence in the host country to establish a subsidiary or they can use the banking licence of their parent bank or of the subsidiaries to conduct activities (see Figure 3). The latter form, which requires the legislative regime to be equivalent to the regime in the home country, is also called a branch. In most cases the home-country supervisors only allow branches to be used for less significant activities.

Overall, approximately 70 of the 125 banks covered in the sample conduct banking activities outside their home market. Most of these banks, about two-thirds, conduct their international activities with both subsidiaries and branches. The remaining banks either exclusively use branches (20%) or subsidiaries (13%). Looking at the international activity outside the euro area where the SRB is the home resolution authority, only 50 banks conduct international activities. The number of banks that

have either a mixture of subsidiaries and branches or only subsidiaries in the other EEA countries or the United States is even lower, at 35. Taking out the single bank that is among the banks with its parent institution in a non-euro area country, there are approximately 34 internationally active banks for which the SRB, as the lead authority, will have to cooperate with resolution authorities in other EEA countries and third countries. In practice, however, the resolution authorities will also need to coordinate with the authorities in countries that host material important branches.

2.1.3 Internationalisation across ownership structures

Looking at the different ownership structures, subsidiaries of banks located outside the euro area have the fewest international activities (see “Banks: concentrated” in **Table 1**). In fact, these banks are already international activities of banking groups; apart from some branches they have very few subsidiaries in other countries. These subsidiaries can also be controlled directly by the parent bank, like most of the banks covered in the sample. Like the foreign controlled banks, the internationally active banks in the sample also use branches more often than subsidiaries for their internationalisation. Since subsidiaries are more often used for systemically important activities, however, the subsidiaries are more important in asset terms.

The second group that conducts limited foreign activities are government-owned banks, both concentrated and dispersed. Most of these banks have a national or even local mandate to provide financing for a specific purpose and therefore have no foreign bank activities. Moreover, the banks with dispersed ownership by other banks and others are often active in multiple countries. The banks owned by other banks are predominantly cooperative and savings banks that follow their clients abroad. This is expressed in the relatively moderate foreign activities that more often than not take the form of branches. The other group includes many commercial banks that generally conduct significant activities in multiple countries. These activities are therefore frequently conducted with subsidiaries.

Table 1: Internationalisation across ownership structures

Ownership structure (nr. of banks)	Domestic				Other EA			Other EU			United States		
	TOT	CI	SUB	BRA	TOT	SUB	BRA	TOT	SUB	BRA	TOT	SUB	BRA
Banks: Concentrated (25)	100%	88%	20%	0%	20%	16%	16%	16%	4%	12%	4%	0%	4%
Banks: Dispersed – Consolidated (4)	100%	100%	100%	25%	100%	75%	100%	75%	50%	75%	75%	0%	75%
Banks: Dispersed – Unconsolidated (13)	100%	62%	69%	8%	54%	23%	54%	31%	15%	31%	15%	0%	15%
Banks: Alternative (2)	100%	100%	100%	0%	50%	50%	50%	50%	50%	50%	50%	0%	50%
Govts: Concentrated (23)	91%	74%	52%	0%	35%	22%	35%	30%	13%	26%	26%	4%	22%
Govts: Dispersed (5)	100%	100%	20%	0%	40%	20%	40%	20%	20%	20%	20%	0%	20%
Others: Concentrated (12)	100%	58%	83%	0%	50%	42%	33%	42%	17%	42%	0%	0%	0%
Others: Dispersed (41)	100%	93%	61%	7%	71%	61%	46%	51%	44%	44%	37%	20%	32%
Total (125)	98%	82%	54%	4%	50%	38%	39%	37%	24%	33%	23%	7%	21%

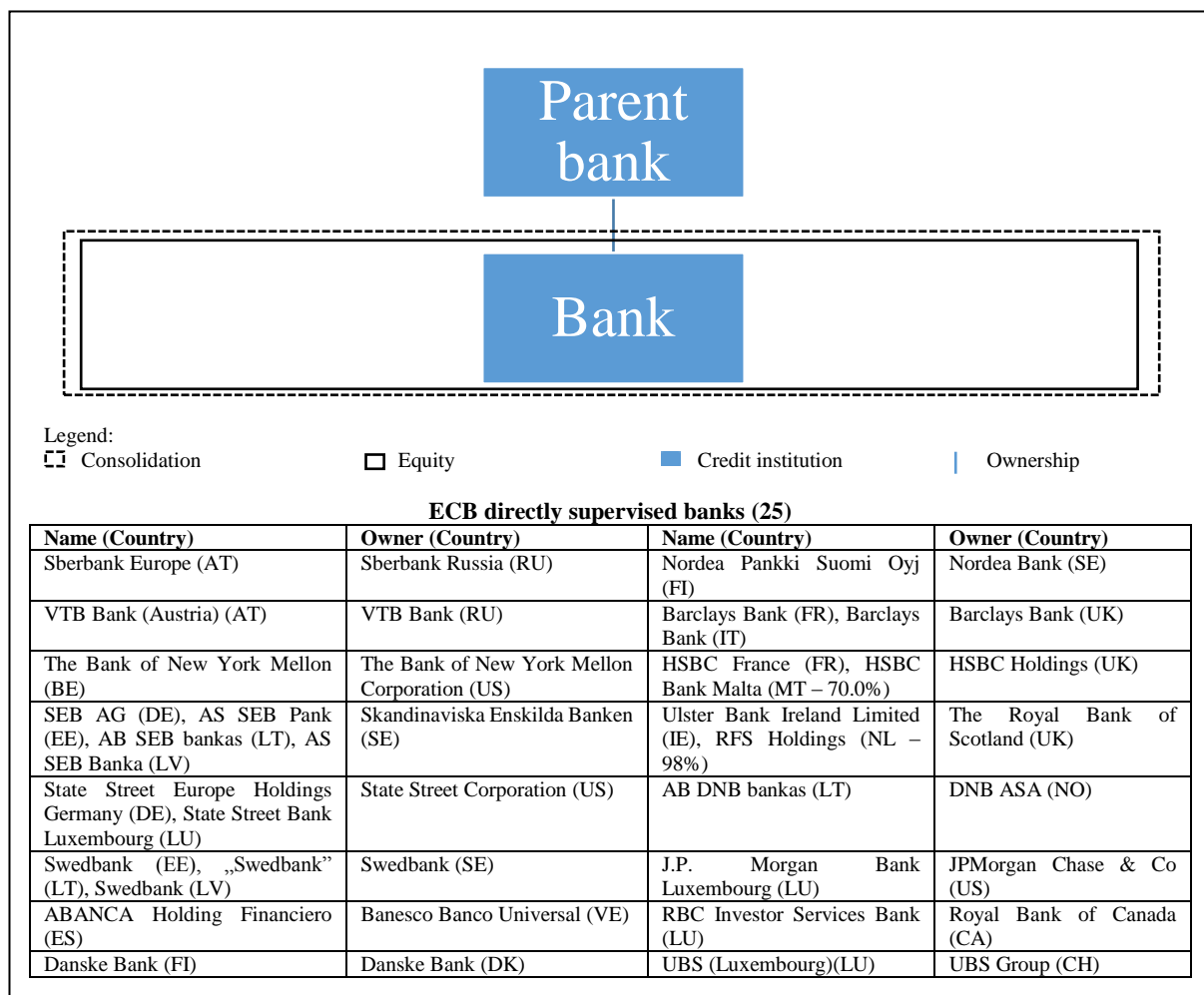
Source: Author’s formulation based on Ayadi et al. (2016), ECB (2016) and Federal Reserve (2016).

In the remainder of this section the implications of the various ownership structures on resolvability are discussed. It focuses on the banks owned by other banks since these are most likely to be relevant to achieve the resolution objectives. Government ownership is also interesting but more from a political risk point of view since there is a direct financial relationship. The other types of banks have further very bank-specific elements that need to be addressed in resolution (see Annex 2 for an overview of the owners and the types).

2.2 Internationalisation

About one-fifth or 25 banks among the banking groups featured in this exercise are a subsidiary of a larger banking group. Some of the banks listed in Figure 2 belong to the same global banking groups. In total, 15 of the banks are owned by just six global banking groups. The operational structures of these banking groups are mostly integrated. The degree of financial interconnectedness depends on the approach of the banking group. Subsidiaries need to meet the local capital requirements, whereas the liquidity can be managed at either parent institution or subsidiary level. Most of these banks (15) are part of a banking group based in non-euro area EEA countries (16) that are also covered under the BRRD, but only have a different resolution authority. The remaining nine banks have a parent institution in the United States (4), Russia (2), Canada (1), Switzerland (1) or Venezuela (1).

Figure 2: Banks: Concentrated ownership



Source: Author's compilation.

2.2.1 Global systemically important banks

In total, 20 banks covered in the sample are, or form part of, global systemically important banks (G-SIBs) as published by the FSB in November 2016. For these banks the home country resolution authority needs to implement the new standards on Total Loss Absorbing Capacity (TLAC),³ perform a resolvability assessment and set-up of global crisis management group (CMG) according to FSB agreements. The CMGs consist of the home and host resolution and supervisory authorities, central banks, ministries of finance, and the authorities responsible for the execution of the deposit insurance schemes of material entities. The SRB is chairing the CMGs of eight G-SIBs that have their headquarters in the euro area. Moreover, it is active in at least eight other CMGs for another 12 banks that have their headquarters outside the euro area. The five banks belonging to three banking groups based in United States and Switzerland are the only G-SIBs outside the EEA with significant subsidiaries in the euro area.

2.2.2 Resolution strategy

All banks with activities in multiple countries require coordination from the resolution authority. Most of the banks' significant international activities are conducted through subsidiaries with credit institutions. There are two general approaches to resolve these banking groups that are organised with a parent institution and subsidiaries. First, under the **single point of entry (SPE)** approach the home resolution authority applies the resolution powers to the top-level parent institution or holding company. Second, under the **multiple point of entry (MPE)** approach the supervisor in the country where the subsidiary is established applies the resolution powers directly to the subsidiary. It is still unclear which approach the resolution authority will prefer for most banks.

Most of the banks are, however, likely to follow the SPE approach. In general, the more operationally and financially integrated/centralised banking groups are more likely to obtain a resolution strategy following this SPE approach, whereas the more decentralised/fragmented banks are likely to obtain a resolution strategy according to the MPE approach.

Among the banks covered by the SRB there are banks or subsidiaries from only three European banking groups that are known for preparing to apply the MPE approach for resolution (i.e. Banco Santander [ES], Banco Bilbao Vizcaya Argentaria [ES], and HSBC [UK]). These banks such as Banco Santander have found ways to run subsidiaries autonomously (i.e. capital and liquidity), while still benefiting from economies of scale and scope for their operations. The banking group has created non-bank subsidiaries that provide, like a sort of internal business outsourcing companies, operational services to the different bank subsidiaries of the banking group. The non-bank subsidiaries are being reshaped to be able to continue providing services to subsidiaries in resolution for up to three years. They can also be carved out and sold with the bank subsidiary in resolution (Santander, 2016).

Even though resolution under the SPE approach is performed through the parent institution, it may still require additional measures to enhance the resolvability. In particular to ensure that the resolution tools (namely sale of business, bridge bank and asset separation) obtain the highest price for the available assets to minimise the losses that need to be covered by the creditors, resolution fund or depositor/investor protection schemes (McGuire, 2012). In order to maximise the price of the assets in resolution, the banks must, for example, have the information (loan files, collateral, etc.) on the assets well documented so that it can be easily accessed and used to sell the assets, transferred to a bridge bank or separated. Moreover, for the sale of only part of the business, it must be feasible for a third party to continue running the business. Since most of the business of banks for which the SPE approach will be followed is likely to be integrated, there might be a need to arrange a shared service

³ The TLAC must, like MREL for European banks, ensure that there is sufficient capital to cover losses and recapitalisation in the event of resolution.

agreement ex-ante to ensure that the subsidiary can continue to rely on the services from the parent institution during a transition period after it has been sold.

2.2.3 Subsidiaries

The SPE approach requires more coordination by the resolution authorities, since the banking group will be resolved as a whole. Coordination is not straightforward because there might be conflicting interests. The home country resolution authorities would generally prefer to use the capital from the financially sound subsidiaries to cover losses in other subsidiaries, for example, while the host country resolution authority would prefer the funds to remain in the subsidiary to cover the creditors in case of resolution. There are several ways in which resolution authorities of subsidiaries can protect the subsidiaries in their jurisdiction. They can ensure that there is sufficient bail-in-able capital for subsidiaries of G-SIBs with the internal TLAC, and for the institutions covered under the BRRD there is the MREL that can also be assigned at an individual entity level. As a secondary effect, the internal TLAC and MREL might also become a limit on the exposure of the parent institution if the banks are resolved, instead of being liquidated under normal insolvency procedures. In addition, regulators and supervisors can impose, for instance, restrictions on inter-affiliate transactions (i.e. parent institution and subsidiaries) and dividends and other distributions to avoid contagion. These restrictions can, for example, be applied to intermediate holding companies that foreign banks with a subsidiary in the US need to establish (Huertas, 2016; Tarullo, 2015). The SRB can also impose the establishment of an intermediate holding company for non-EU banks operating in the euro area as well as many other actions to ease the resolvability of the euro area's activities (Deloitte, 2015).

When national resolution authorities undertake uncoordinated actions it is likely to lead to higher resolution costs. Many authorities are tempted to use their discretionary measures to protect the assets in their jurisdiction in the event of resolutions. There are authorities that opt to ring-fence the assets in their territory at the moment a cross-border banking group fails⁴ or limit or forbid parent institutions from taking out capital from their subsidiaries the moment they make profits, or have excess capital or liquidity, as illustrated by Unicredit (IT), which was not allowed by Bafin to transfer capital and liquidity from its German subsidiary. The resolution authorities take these actions primarily to fulfil the demands of national parliaments, taxpayers and creditors, without considering the negative externalities such as financial instability outside the territory (Faia & Weder di Mauro, 2015). The inability to extract capital from the subsidiary is often reflected in relatively high capital levels in subsidiaries compared to the overall group, which implies that the parent institution – for most banks the most important entity in which banking activities are conducted – is relatively less capitalised and more fragile.

To reduce the effect of the restrictions on the transfer of capital and liquidity in subsidiaries, banks can for example reduce the intra-group exposures. Hence, banks can try to match assets and liabilities at subsidiary level instead of balancing the assets and liabilities across subsidiaries and parent institution through intra-group funding. In practice this would, for instance, mean that assets from countries where the subsidiaries have a funding gap are transferred to subsidiaries in countries that have excess deposits. This would make the parent institution less vulnerable to contagion in case the funds of a subsidiary cannot be used in resolution.

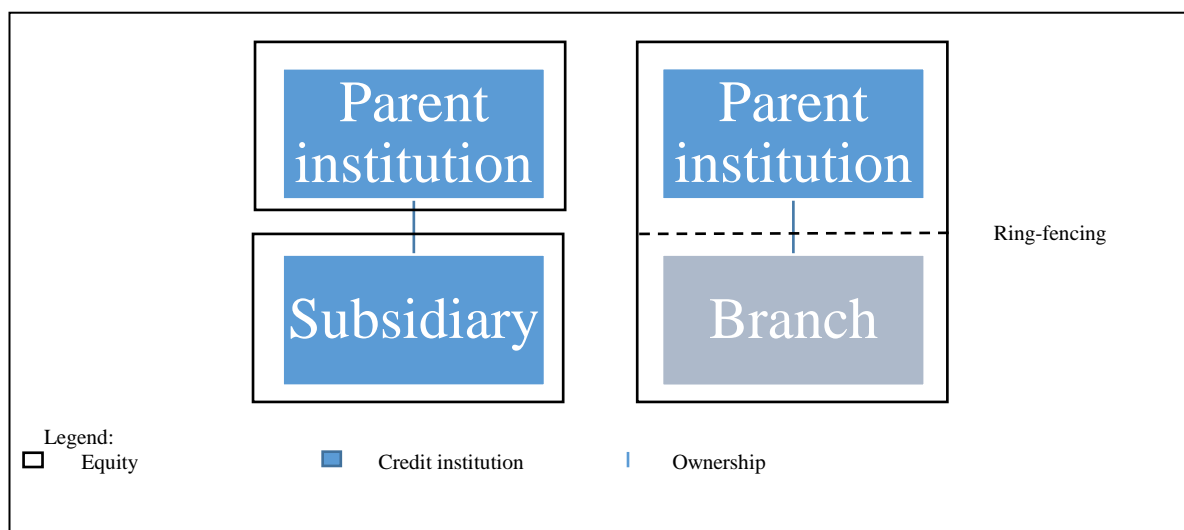
Moreover, the territorial approach substantially limits the difference between branches and subsidiaries in resolution. The principal remaining difference, besides the fact that the activities of a branch are not covered by a banking license, is that the branch does not necessarily have a positive capital position that limits the possibility to continue operating the business. Hence, either the assets can be sold separately or the business can only be sold to institutions that already have a domestic banking license. Moreover, since a branch is not capitalised on a stand-alone basis, it does not necessarily have sufficient assets to cover the liabilities.

⁴ For example, ring-fencing the assets of the US branch of BCCI, when the bank failed in 1991 (Schoenmaker, 2013).

2.2.4 Branches

Even when the bank is only active across borders with a single branch, international coordination is important. The host country NRA can take a territorial approach, which means that the bank's branch is liquidated separate from the parent institution, which might leave the host resolution no other option but a disorderly liquidation. The home country NRAs therefore need to receive sufficient certainty that the host NRA will not opt for such a scenario with far-reaching negative spill-over effects on the home country (Huertas, 2016). This is especially important for banks that are active in the US. In many cases these branches are material to the group and US laws provide the option to follow a territorial approach to resolution (Lee, 2014).

Figure 3: Internationalisation through subsidiaries (lhs) and branches (rhs)



Source: Author's formulation.

This territorial approach is not only a theoretical possibility, but is also likely to be applied in practice. Unlike in the EU, summaries of the resolution plans submitted to the Federal Reserve and FDIC by banks are published in the US. They provide insights into the group's structures as well the resolution strategy at a high level. The public sections of the resolution plans already show that the US authorities are likely to take a territorial approach to the resolution of most banks covered in the sample (e.g. Erste [AT], DZ Bank [DE], Nord/LB [DE], Banco de Sabadell [ES], BPCE [FR], Bank of Ireland [IE] and Rabobank [NL]). Rabobank executes various activities in the US, including retail banking, leasing and wholesale banking. A part of the activities are executed via a New York branch of Rabobank, which is the only activity that is currently considered material from a US Resolution Law perspective. The published section of the bank's US resolution plan indicates that the branch is likely to be liquidated in the event of resolution. This means that the superintendent is expected to 'ring-fence' all of the branch's assets, as well as other assets of the parent institution located in New York. These assets will then be used to pay back the non-affiliated creditors of the branch. Moreover, the resolution plan for the branch of Dexia (BE) in New York includes a similar territorial approach, but considers a group-wide solution in which the branch remains operational as part of the parent institution, following the group resolution plan as well. Most of the high-level resolution strategies of the other euro area banks with a branch in the US are vaguer on the impact of resolution on the assets of the branch. They state, like Rabobank, that the branch will be liquidated under the respective state banking law, but do not elaborate on the implications for the control of the branch's assets.

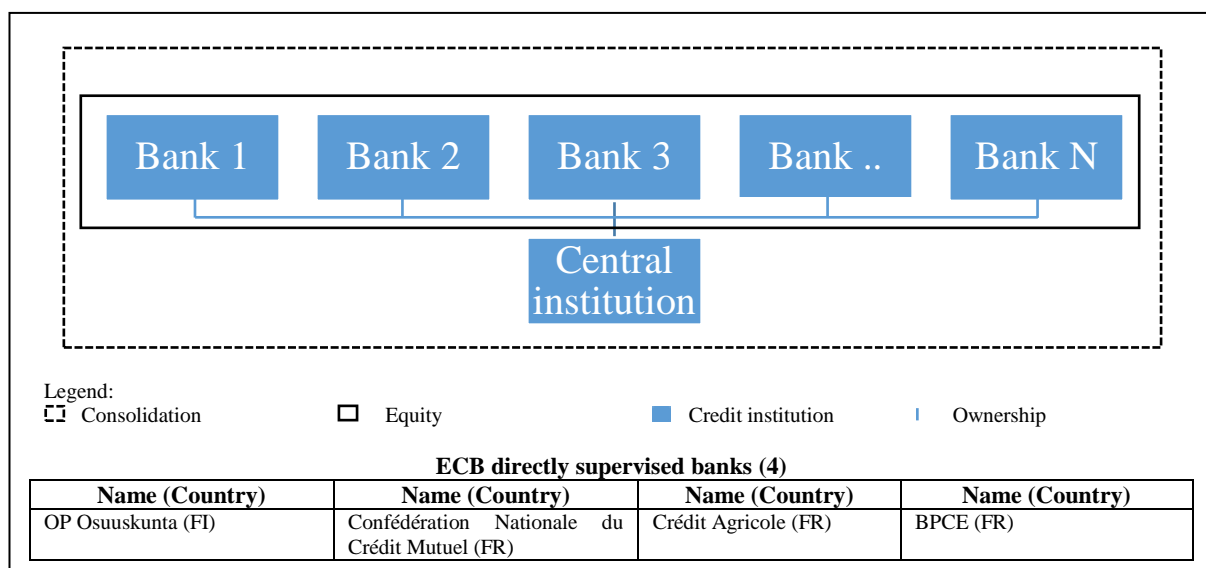
2.3 Dispersed bank ownership

Turning to the more particular ownership structures: a minority of the parent/central institutions of the banks in the sample is owned by numerous other banks. In this section the three types of dispersed bank ownership are discussed: consolidated, alternative, and unconsolidated, respectively.

2.3.1 Consolidated

Only a couple of banks with dispersed ownership are consolidated with their owners. The four banking groups covered are all cooperative banks, of which the local or regional banks own the central institutions (i.e. ‘parent institution’ of cooperative and savings banks) that provide financial transactions and various operational services to the local and regional banks. In general, the banks that chose this ownership structure are closely integrated and are unlikely to be able to function as standalone entities. In most cases this is even practically impossible since, despite the reverse ownership, they are consolidated into a single group based on the guarantee that they will stand in for each other’s losses in case one of the banks fails (cross-guarantee/joint liability arrangements). This limits the potential resolution strategies to a single point of entry for the local/regional banks and central institutions.

Figure 4: Banks: Dispersed ownership - Consolidated



Source: Author’s formulation.

The cross-guarantee and joint-liability arrangements differ across countries and banks. The cross-guarantee schemes form a commitment from banks to provide capital and liquidity to distressed banks. In some cases the cross-guarantee is legally binding and automatically triggered in the case of distress (e.g. regional Raiffeisen banklen, Crédit Agricole). These banks can be both consolidated and unconsolidated. In turn, in other cases the members or others will need to authorise the support first and may have reservations in case of fraud and criminal transactions, for example. This constitutes a complication in resolution. Another complicating factor is that the cross-guarantee does not often provide unlimited support. The support a bank has to give to the distressed bank may be limited to its contribution capacity (Ayadi et al., 2010).

The Rabobank (NL) used to be a bank with dispersed ownership by banks that were consolidated in a single group, but in 2015 it decided to change this structure. At the beginning of 2016, the bank dropped the banking licences for the individual local banks and consolidated activities into a single central institution, which is now owned directly by the members. The members were previously

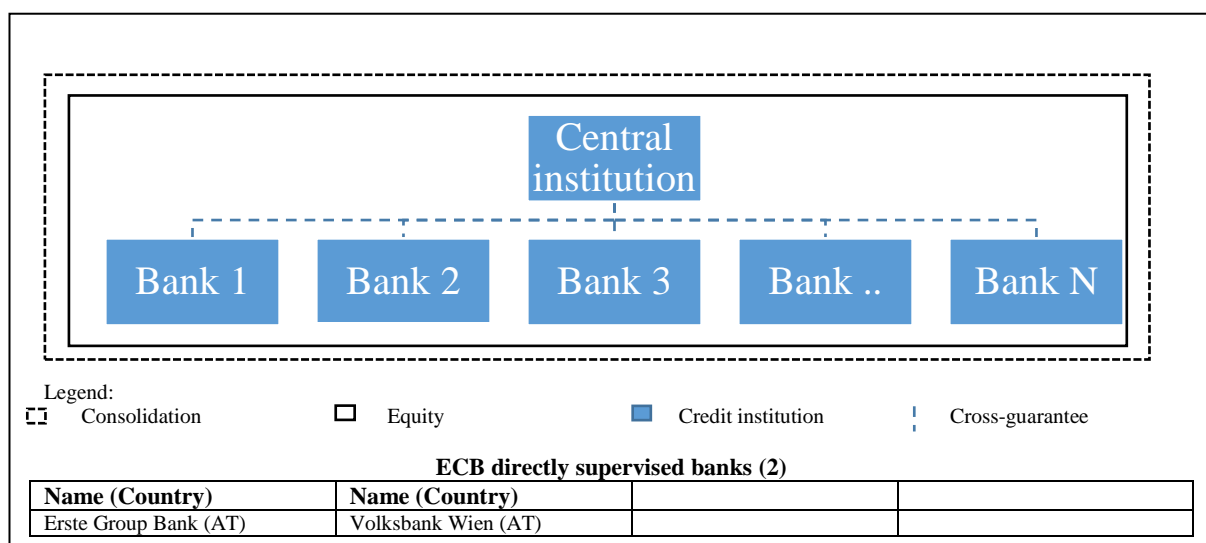
owners of the many separate local banks, which in turn owned the central institution. There were numerous motives for this change, the most important of which were improving the operational efficiency and making the governance model more effective. Enhancing resolvability was also among the reasons. The dispersed ownership model ensures that the capital and liquidity of the consolidated group are spread across numerous entities. Although these entities all guarantee each other's liabilities, according to the bank's lawyers it would be practically impossible to obtain the necessary approval of all the 100 or more local banks to unleash the capital or transfer assets over the course of a resolution weekend, which is what would be required for prompt intervention.

The resolution authority has the possibility to transfer capital and assets of the bank in resolution freely under the BRRD and SRMR. It has to ensure, however, that no creditor is worse off than it would be under normal insolvency. Since the shareholding banks do not under all conditions have to contribute in case of liquidation or only a limited amount, the resolution authority would without any additional measures be limited in the usage of the banks' capital. To facilitate prompt resolution without the drastic change in structure that Rabobank has undertaken, the local/regional banks would therefore need to include clauses in their statutes to allow the resolution authority to immediately and unconditionally extract capital or transfer assets in case of resolution (i.e. capital and assets can be used to cover losses).

2.3.2 Alternative

The issues concerning banks with consolidated owners are even more apparent if the banks are consolidated in a group without owning the parent institution. There are only two Austrian cooperative and savings banks of which the concerned banks conduct financial transactions and obtain various operational services from the parent institution, without having the collective control of this institution. The banks are like the consolidated banks, where the central institution does not have control over the owning banks, consolidated based on cross-guarantee schemes. In order to extract the funds in resolution the resolution authority would need to receive a mandate from the individual banks in the scheme to re-allocate capital and transfer assets before the actual intervention to make it practically feasible.

Figure 5: Banks: Alternative ownership



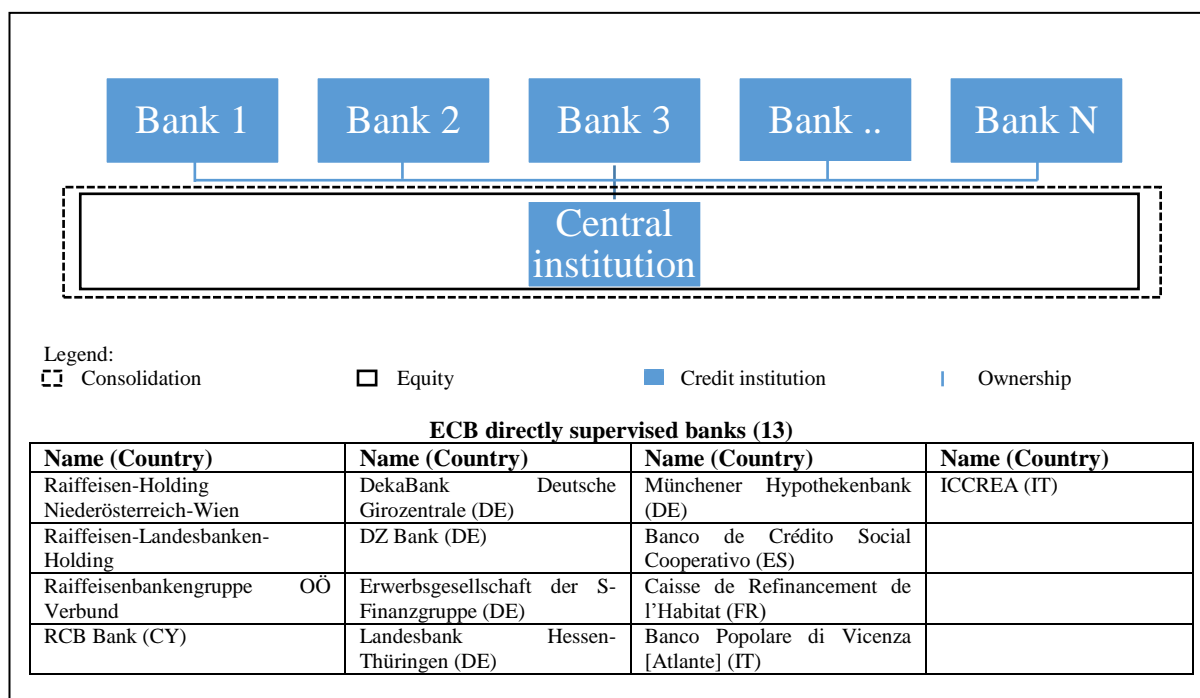
Source: Author's formulation.

2.3.3 Unconsolidated

The last group of bank-owned banks includes banks that are owned by two or more banks and not consolidated in a single group. This group forms the largest among the three types of bank-owned banks in this section. All the 13 banking groups with this ownership structure are either central institutions of local or regional cooperative or savings banks, with the exception of RCB Bank (CY), which is owned by two commercial banks (i.e. VTB and Bank Otkritie). The central institutions also provide financial and operational services to their shareholding local and/or regional banks like the consolidated banks, but the member banks of these central institutions often function more autonomously and the finances are bound to the limits that are also applicable to conventional interbank lending.

There are, nevertheless, several specific issues regarding the resolvability of these unconsolidated institutions. First of all, the owners of these banks are mostly identified as less significant banks, although combined they often have significant market presence in the areas where they are active. This makes the owning-banks potentially systemic as a collective. Given the dependence on services from the central institutions for their daily operations, the operational services to the owning banks should be considered as a critical service that needs to be continued in the case of resolution. The banks could, for example, set up a scheme like the one used today for MPE banks, with non-bank subsidiaries responsible for the operational services that can be carved out in the event of a resolution. In addition, the resolution authority should ensure that the write-down of exposures and holdings of the owning institutions to and in the central institutions will not lead to a systemic-relevant event among the owning banks.

Figure 6: Banks: Dispersed ownership - Unconsolidated



Source: Author's formulation.

3. CONCLUSIONS

The euro area banking sector is highly diverse, with many different types of banks conducting various activities. These activities can be structured in countless different legal structures. This analysis looked at the legal, operational and financial structures of the 125 banks directly supervised by the ECB that are subject to the resolution planning of the SRB. More specifically, it looked at the structure of the resolvability of the banking-related structures. This includes, on the one hand, the subsidiaries and branches that conduct banking activities internationally, and on the other hand parent institutions that are owned by multiple other banks.

Coordination and cooperation between resolution authorities will be crucial if the system is to work efficiently. Hence, if the resolution authorities only focus on their own territory, there are likely to be negative spillover effects on other jurisdictions. To prevent authorities from being caught in a prisoner's dilemma (i.e. both are worse off with a territorial approach), it is important that resolution authorities agree ex ante on an integrated approach, especially in the case of banks that follow an SPE approach. The first signs on the two-fifths of the banks in the sample that conduct activities outside the euro area are not very positive. The US authorities are, for example, likely to follow a territorial approach to branches and raise obstacles to transfer capital and assets from subsidiaries to the parent institution and/or other subsidiaries in case of resolution. It is currently (still) unclear which approach the resolution authorities will follow in the EU.

Banks owned by other banks have certain issues that make them harder to resolve than banks with a single or multiple non-bank owners. The 19 banks that are owned by other banks form a substantial minority in the sample and have highly divergent structures. A broad distinction has been made between banks that are owned by other banks and consolidated or not consolidated in a single banking group, or alternatively where there is no ownership relationship but a cross-guarantee or joint liability that allows the banks to nevertheless be consolidated. All these types of banks to some degree rely on the operational support of central institutions and are financially interlinked with the banks under the responsibility of the resolution authority, which means that the continuity of some of these operational activities that are materially important for other banks need to be ensured in resolution. Hence, these banks are often considered to be less important individually, but collectively they are often of systemic importance. Moreover, due to their decentralised structure, the consolidated banking groups' assets and capital are fragmented across multiple bank owners. In order to allow the resolution authority to swiftly intervene and apply its resolution tools effectively, banks will need to put in place provisions that make it easier for resolution authorities to cover losses through the transfer of assets and extraction of capital in resolution.

More generally, the resolution authority also needs to take measures to ensure the operational continuity of the bank. For this, the resolution authority needs to ensure that the bank in resolution retains required authorisations and licences; access to financial market infrastructures; support services, and liquidity, as well as to avoid that qualified financial contracts are terminated and to ensure working capital of corporates (Huertas, 2016).

The assessment of legal and operational structures and resolvability is rather complicated in Europe. Disclosure on both is limited. There is, for instance, no disclosure on the entities that perform critical economic functions or on the resolution strategy in the euro area and the wider EU. In the US the FDIC publishes the summary of the resolution plan with the preferred high-level resolution strategy. This enables the public, for example, to scrutinise the level of coordination and cooperation between resolution authorities in the EU and outside. But possibly more importantly it can also prevent uncertainty among creditors in the event of a resolution. More transparency regarding the preferred resolution strategy is therefore recommended.

More transparency would also allow a better assessment of all the banks' activities. Besides banking activities, most banks also conduct activities such as asset management services, insurance, market infrastructure, and/or investments. These activities are not necessarily systemically important, but can enhance the complexity of the organisation, or might in the future be under different resolution regimes, which would make resolution more difficult.

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ANNEX 1. INTERNATIONALISATION THROUGH SUBSIDIARIES AND BRANCHES

Table 2: Subsidiaries and branches of ECB directly supervised banks

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
Erste Group Bank	AT	Banks: Alternative	48	5	0	3	1	7	2	0	1
Promontoria Sacher Holding	AT	Others: Concentrated	0	4	0	0	0	0	0	0	0
Raiffeisen-Holding Niederösterreich-Wien	AT	Banks: Dispersed - Unconsolidated	0	1	0	0	0	0	0	0	0
Raiffeisen-Landesbanken- Holding	AT	Banks: Dispersed - Unconsolidated	0	8	0	2	2	9	1	0	0
Raiffeisenbankengruppe OÖ Verbund	AT	Banks: Dispersed - Unconsolidated	0	2	0	0	1	0	1	0	0
Sberbank Europe	AT	Banks: Concentrated	1	0	0	2	1	3	0	0	0
Volksbank Wien	AT	Banks: Alternative	27	2	0	0	0	0	0	0	0
VTB Bank (Austria)	AT	Banks: Concentrated	1	0	0	2	1	0	0	0	0
AXA Bank Europe	BE	Others: Concentrated	1	0	0	1	0	0	1	0	0
Banque Degroof Petercam	BE	Others: Dispersed	1	0	1	3	0	0	0	0	0
Belfius Banque	BE	Governments: Concentrated	1	0	0	0	1	0	0	0	0
Dexia	BE	Governments: Concentrated	0	0	0	7	2	1	0	0	1
Investeringsmaatschappij Argenta	BE	Others: Concentrated	0	2	0	0	1	0	0	0	0
KBC Group	BE	Others: Dispersed	0	2	0	3	4	6	1	0	1
The Bank of New York Mellon	BE	Banks: Concentrated	1	0	0	0	0	0	0	0	0

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
Bank of Cyprus Public Company	CY	Others: Dispersed	1	0	0	0	1	1	1	0	0
Cooperative Central Bank	CY	Governments: Concentrated	19	0	0	0	0	0	0	0	0
Hellenic Bank Public Company Limited	CY	Others: Dispersed	1	0	0	0	0	0	0	0	0
RCB Bank	CY	Banks: Dispersed - Unconsolidated	1	0	0	0	1	0	0	0	0
Aareal Bank	DE	Others: Dispersed	1	1	0	0	0	0	0	0	0
Bayerische Landesbank	DE	Governments: Concentrated	1	1	0	0	1	4	1	0	1
Commerzbank	DE	Others: Dispersed	1	3	0	2	0	0	0	0	1
DekaBank Deutsche Girozentrale	DE	Banks: Dispersed - Unconsolidated	1	0	0	1	1	0	0	0	0
Deutsche Apotheker- und Ärztebank	DE	Others: Dispersed	1	0	0	0	0	0	0	0	0
Deutsche Bank	DE	Others: Dispersed	1	8	0	8	3	0	0	1	1
Deutsche Pfandbriefbank	DE	Others: Dispersed	1	0	0	0	2	0	2	0	0
DZ BANK	DE	Banks: Dispersed - Unconsolidated	2	5	1	3	3	2	1	0	1
Erwerbsgesellschaft der S-Finanzgruppe	DE	Banks: Dispersed - Unconsolidated	0	3	0	0	1	0	0	0	0
HASPA Finanzholding	DE	Others: Dispersed	2	0	0	0	0	0	0	0	0
HSH Nordbank	DE	Governments: Dispersed	1	0	0	1	2	0	0	0	0
Landesbank Baden-Württemberg	DE	Governments: Dispersed	1	1	0	0	1	1	1	0	1
Landesbank Hessen-Thüringen	DE	Banks: Dispersed - Unconsolidated	1	2	0	0	1	0	1	0	1

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
Landeskreditbank Baden-Württemberg-Förderbank	DE	Governments: Concentrated	1	0	0	0	0	0	0	0	0
Landwirtschaftliche Rentenbank	DE	Governments: Concentrated	1	0	0	0	0	0	0	0	0
Münchener Hypothekbank	DE	Banks: Dispersed - Unconsolidated	1	0	0	0	0	0	0	0	0
Norddeutsche Landesbank - Girozentrale-	DE	Governments: Concentrated	1	2	0	1	1	0	2	0	1
NRW.Bank	DE	Governments: Concentrated	1	0	0	0	0	0	0	0	0
SEB AG	DE	Banks: Concentrated	1	0	0	0	0	0	0	0	0
State Street Europe Holdings Germany	DE	Banks: Concentrated	0	2	0	1	4	0	1	0	0
Volkswagen Financial Services	DE	Others: Concentrated	0	1	0	1	7	2	1	0	0
AS SEB Pank	EE	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Swedbank	EE	Banks: Concentrated	1	0	0	0	0	0	0	0	0
ABANCA Holding Financiero	ES	Banks: Concentrated	0	1	0	0	1	0	0	0	0
Banco Bilbao Vizcaya Argentaria	ES	Others: Dispersed	1	7	0	3	5	1	1	1	1
Banco de Crédito Social Cooperativo	ES	Banks: Dispersed - Unconsolidated	14	6	0	0	0	0	0	0	0
Banco de Sabadell	ES	Others: Dispersed	1	0	0	0	0	0	1	1	1
Banco Mare Nostrum	ES	Governments: Concentrated	1	0	0	0	0	0	0	0	0
Banco Popular Español	ES	Others: Dispersed	1	3	0	1	0	0	0	1	0
Banco Santander	ES	Others: Dispersed	1	6	0	19	5	6	3	1	1
Bankinter	ES	Others: Dispersed	1	0	0	1	1	0	0	0	0

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
BFA Tenedora De Acciones	ES	Governments: Concentrated	0	1	0	0	0	0	0	0	0
Criteria Caixa	ES	Others: Concentrated	0	2	0	0	0	0	1	0	0
Ibercaja Banco	ES	Others: Concentrated	1	0	0	0	0	0	0	0	0
Kutxabank	ES	Others: Concentrated	1	1	0	0	0	0	0	0	0
Liberbank	ES	Others: Dispersed	1	1	0	0	0	0	0	0	0
Unicaja Banco	ES	Others: Concentrated	1	1	0	0	0	0	0	0	0
Danske Bank	FI	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Kuntarahoitus	FI	Governments: Dispersed	1	0	0	0	0	0	0	0	0
Nordea Pankki Suomi	FI	Banks: Concentrated	1	1	0	0	0	0	0	0	1
OP Osuuskunta	FI	Banks: Dispersed - Consolidated	176	6	0	0	3	0	0	0	0
Agence Francaise de Developpement	FR	Governments: Concentrated	0	0	0	0	0	0	0	0	0
Barclays Bank	FR	Banks: Concentrated	1	0	0	0	0	0	0	0	0
BNP Paribas	FR	Others: Dispersed	1	21	0	15	34	3	12	1	2
BPCE	FR	Banks: Dispersed - Consolidated	34	42	0	4	9	0	2	0	1
Bpifrance	FR	Governments: Concentrated	1	1	0	0	0	0	0	0	0
Caisse de Refinancement de l'Habitat	FR	Banks: Dispersed - Unconsolidated	1	0	0	0	0	0	0	0	0
Confédération Nationale du Crédit Mutuel	FR	Banks: Dispersed - Consolidated	6	32	1	11	6	1	4	0	1
Crédit Agricole S.A.	FR	Banks: Dispersed - Consolidated	40	21	0	13	16	8	4	0	1
HSBC France	FR	Banks: Concentrated	1	1	0	0	0	0	0	0	0
La Banque Postale	FR	Government: Concentrated	1	2	0	0	0	0	0	0	0

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
RCI Banque	FR	Others: Concentrated	1	1	0	1	7	0	1	0	0
SFIL	FR	Governments: Concentrated	1	1	0	0	0	0	0	0	0
Société générale	FR	Others: Dispersed	1	22	0	14	2	1	0	0	1
Alpha Bank	GR	Others: Dispersed	1	0	0	1	0	2	1	0	0
Eurobank Ergasias	GR	Others: Dispersed	1	0	0	2	0	2	1	0	0
National Bank of Greece	GR	Others: Dispersed	1	0	0	2	1	2	1	0	0
Piraeus Bank	GR	Others: Dispersed	1	0	0	1	1	3	1	0	0
Allied Irish Banks	IE	Governments: Concentrated	1	3	0	0	0	1	1	0	1
permanent tsb Group Holdings	IE	Governments: Concentrated	0	1	0	0	0	0	0	0	0
The Governor and Company of the Bank of Ireland	IE	Others: Dispersed	1	1	0	0	2	1	2	0	1
Ulster Bank Ireland Limited	IE	Banks: Concentrated	1	0	0	0	0	0	1	0	0
Banca Carige	IT	Others: Dispersed	0	3	0	0	0	0	0	0	0
Banca Monte Dei Paschi di Siena	IT	Others: Dispersed	1	3	0	2	0	0	1	0	1
Banca popolare dell'Emilia Romagna	IT	Others: Dispersed	3	0	0	1	0	0	0	0	0
Banca Popolare di Sondrio	IT	Others: Dispersed	1	0	0	0	0	0	0	0	0
Banca Popolare di Vicenza	IT	Banks: Dispersed - Unconsolidated	1	2	0	0	0	0	0	0	0
Banca Popolare di Milano	IT	Others: Dispersed	1	2	0	0	0	0	0	0	0
Banco Popolare	IT	Others: Dispersed	1	1	0	1	0	1	0	1	0
Barclays Bank	IT	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Credito Emiliano	IT	Others: Dispersed	1	1	0	1	0	0	0	0	0

Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
ICCREA Holding	IT	Banks: Dispersed - Unconsolidated	0	3	0	0	0	0	0	0	0
Intesa Sanpaolo	IT	Others: Dispersed	8	7	1	7	5	4	5	0	1
Mediobanca	IT	Others: Dispersed	1	2	0	1	3	0	0	0	0
UniCredit	IT	Others: Dispersed	1	2	1	8	6	9	2	0	2
Unione di Banche Italiane	IT	Others: Dispersed	1	8	0	1	3	0	0	0	0
Veneto Banca	IT	Others: Dispersed	1	2	0	0	0	2	1	0	0
“Swedbank”, AB	LT	Banks: Concentrated	1	0	0	0	0	0	0	0	0
AB DNB bankas	LT	Banks: Concentrated	1	0	0	0	0	0	0	0	0
AB SEB bankas	LT	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Banque et Caisse d’Epargne de l’Etat, Luxembourg	LU	Governments: Concentrated	1	0	0	0	0	0	0	0	0
J.P. Morgan Bank Luxembourg	LU	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Precision Capital	LU	Others: Concentrated	0	3	0	4	1	2	1	0	0
RBC Investor Services Bank	LU	Banks: Concentrated	1	0	0	2	0	0	0	0	0
State Street Bank Luxembourg	LU	Banks: Concentrated	1	0	0	0	0	0	0	0	0
UBS (Luxembourg)	LU	Banks: Concentrated	1	0	0	0	0	0	0	0	0
ABLV Bank	LV	Others: Dispersed	1	0	0	1	0	0	0	0	0
AS SEB Banka	LV	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Swedbank AS	LV	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Bank of Valletta	MT	Others: Dispersed	1	0	0	0	0	0	0	0	0
HSBC Bank Malta	MT	Banks: Concentrated	1	0	0	0	0	0	0	0	0
Medifin Holding	MT	Others: Concentrated	1	2	0	1	0	0	0	0	0
ABN AMRO Group.	NL	Governments: Concentrated	0	5	0	3	5	0	1	0	0

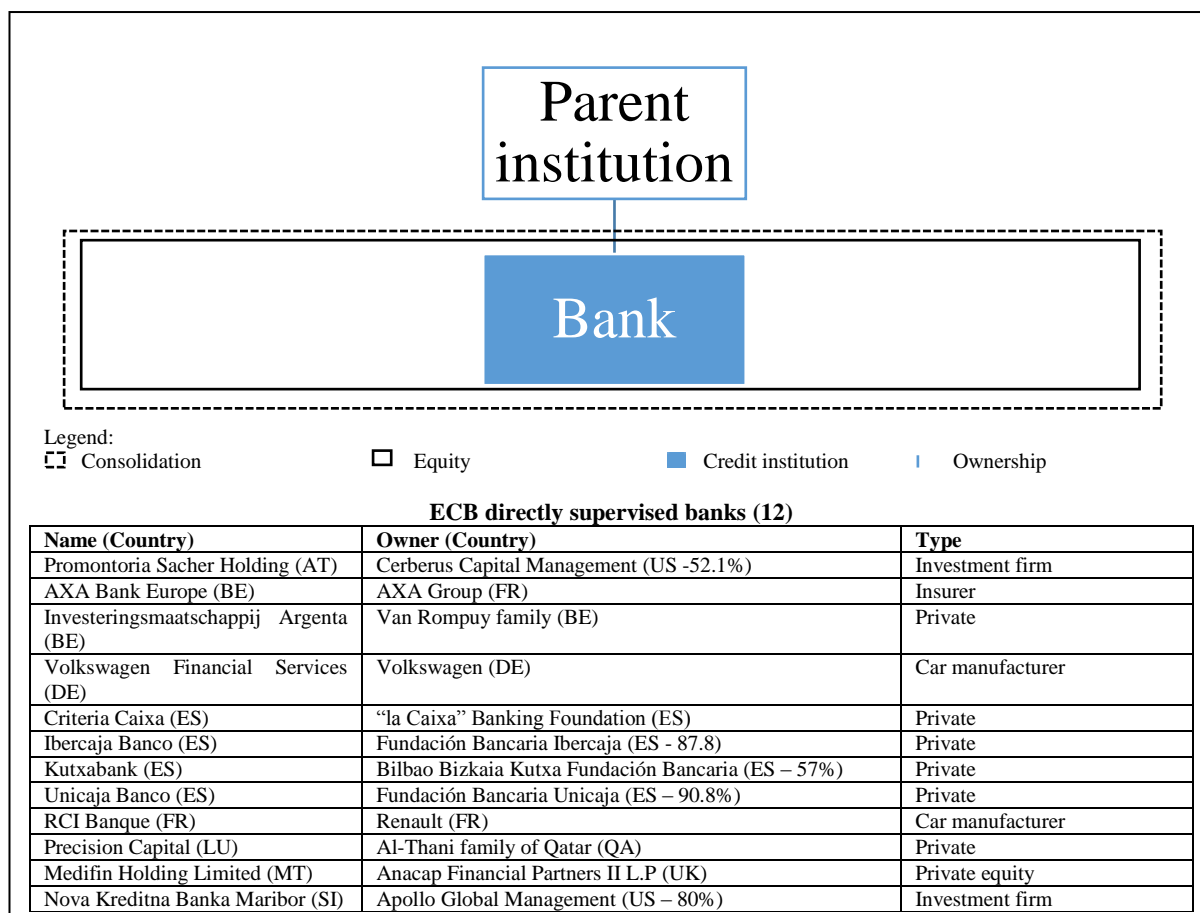
Name	Country	Ownership structure	Domestic			Other EA		Other EU		United States	
			CI	SUB	BRA	SUB	BRA	SUB	BRA	SUB	BRA
Bank Nederlandse Gemeenten	NL	Governments: Dispersed	1	0	0	0	0	0	0	0	0
Coöperatieve Rabobank	NL	Others: Dispersed	1	5	0	1	9	3	1	1	1
ING Groep	NL	Others: Dispersed	0	3	0	4	9	1	5	0	0
Nederlandse Waterschapsbank	NL	Governments: Dispersed	1	0	0	0	0	0	0	0	0
RFS Holdings	NL	Banks: Concentrated	0	2	0	0	0	0	1	0	0
SNS Holding	NL	Governments: Concentrated	0	3	0	0	0	0	0	0	0
Banco BPI	PT	Others: Dispersed	1	1	0	0	3	0	0	0	0
Banco Comercial Português	PT	Others: Dispersed	1	2	0	0	0	2	0	0	0
Caixa Geral de Depósitos	PT	Governments: Concentrated	1	2	0	1	4	0	1	0	1
Novo Banco	PT	Governments: Concentrated	1	2	0	1	2	0	2	1	0
Abanka	SI	Governments: Concentrated	1	0	0	0	0	0	0	0	0
Nova Kreditna Banka Maribor	SI	Others: Concentrated	1	1	0	0	0	0	0	0	0
Nova Ljubljanska Banka	SI	Governments: Concentrated	1	0	0	0	1	0	0	0	0
TOTAL			470	307	5	169	187	91	75	9	28

Source: Author's elaboration based on Ayadi et al (2016), ECB (2016) and Federal Reserve (2016).

Note: The names of the banks belonging to G-SIBs as of November 2015 are highlighted in **bold**.

ANNEX 2. OTHER MAJORITY OWNERS CONCENTRATED BANKS

Figure 7: Concentrated ownership: Others



Source: Author.



Европейски парламент Parlamento Europeo Evropský parlament Europa-Parlamentet Europäisches Parlament
Euroopa Parlament Ευρωπαϊκό Κοινοβούλιο European Parliament Parlement européen Parlaimint na hEorpa
Europski parlament Parlamento europeo Eiropas Parlaments Europos Parlamentas Európai Parlament
Parlament Ewropew Europees Parlement Parlament Europejski Parlamento Europeu Parlamentul European
Európsky parlament Evropski parlament Euroopan parlamentti Europaparlamentet

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