House of Finance
SAFE
Policy Center

Patrick Behr and Reinhard H. Schmidt

The German Banking System: Caracteristics and Challenges

White Paper No. 32

SAFE | Sustainable Architecture for Finance in Europe
A cooperation of the Center for Financial Studies and Goethe University Frankfurt

House of Finance | Goethe University
Theodor-W.-Adorno-Platz 3 | 60323 Frankfurt

Tel. +49 69 798 33684 | Fax +49 69 798 33910
policy_center@safe.uni-frankfurt.de | www.safe-frankfurt.de

This article is the first version of an article to be published in the forthcoming “Palgrave Handbook of European Banking” edited by Thorsten Beck et al.

The German Banking System: Characteristics and Challenges[1]

Patrick Behr[#] and Reinhard H. Schmidt[♣]

November 2015

1 Introduction

Germany has a banking system in which privately owned banks have coexisted for more than 200 years with banks marked by direct government involvement. The privately owned banks comprise large commercial banks active on a national and international level such as Deutsche Bank and Commerzbank and a number of other, more specialized private banks as well as the regionally focused, relatively small credit cooperatives. The banks with government involvement are the large, mostly nationally active *Landesbanken* and the smaller, regionally focused savings banks. The savings banks and the cooperative banks follow similar, relatively simple business models (deposit taking and lending). They are both geographically constrained as their by-laws allow them to provide loans only to borrowers from the same administrative district. On the other hand, the large commercial banks and, to a lesser degree, the *Landesbanken* offer the full range of products from loans, through investment banking services to insurance products. In particular the large private commercial banks can therefore be characterized as typical universal banks.

The private commercial banks, the small credit cooperatives and the savings banks and *Landesbanken* make up what is often referred to as the 'Three-Pillar-Banking-System'. This structure makes the German banking system unique, with only the Austrian banking system showing a somewhat similar structure in Europe. In sections two and three, we will give a

---

[1] This is a first version of an article which is forthcoming in the Palgrave Handbook of German Banking.

[#] Brazilian School of Public and Business Administration (EBAPE), Getulio Vargas Foundation (FGV), Praia de Botafogo 190, 22253-900 Rio de Janeiro, Brazil, Email: patrick.behr@fgv.br.

[♣] Goethe University, Frankfurt, Germany, and Zeppelin University, Friedrichshafen, Germany. Email: schmidt@finance.uni-frankfurt.de.

detailed description of the current structure of the German banking system and its recent developments.

The financial crisis of 2007/2008 affected the German banking system and threatened the existence of some large banks from the private sector as well as among the banks with government involvement. The consequences of the financial crisis of 2007/2008 for the German banking system and other challenges facing German banks are discussed in section four.

In section five, we provide a brief comparison of the German banking system with other European banking systems to point out the uniqueness of the German banking system. Interestingly, contrary to the banking systems of many other European countries, the German system did not undergo major structural changes in the last decades.

The strong role and involvement of the government in German banking is subject to ongoing debate. The general view on government involvement in banking is that government banks are inefficient because of agency problems, corruption and fraud (e.g. La Porta et al. 2002; Carvalho 2014). However, recent research on the German banking system draws a somewhat different picture. Some authors argue that the existence of small, regionally focused banks has positive effects for local economic development. Others argue that banks with government involvement can help reduce financial constraints for small and medium-sized companies and stabilize the economy and the banking system by displaying less cyclical lending behavior. We will elaborate more on this and discuss the findings of recent empirical research on the German banking system in section six. Section seven offers a conclusion and outlook.

2 Structural features of the German banking system

2.1. The long-term development of the German banking system

The basic structure of the present German banking system already emerged in the 19th century. While private banks, closely held and often family-owned, dominated German banking in the early 19th century, they had soon lost ground to what is now known as the

'Three-Pillar-System'. This system is composed of three groups of banks: private banks including the so-called 'big banks', banks with government involvement and cooperative banks. The latter group consists of the large *Landesbanken* and the smaller savings banks with a local focus. This group comprises the banks with the longest tradition, dating back to the turn from the 18th to the 19th century. Then, around 1850, the cooperative banking group emerged as another important group of financial institutions. The 'big banks' were founded at the time of the creation of the Second German Empire after the German-French war of 1870/71.

The Great Financial Crisis of 1930 led to the issuance of the first German banking law of 1934. It created a general regulatory and supervisory regime through which savings banks and cooperative banks were on the same regulatory basis as the private commercial banks. Mainly for political reasons, the economic importance of the savings and cooperative banks rose considerably in the period after the Second World War. This is partly due to the fact that these banks had been less involved in the crimes of the Nazi regime than the big private banks. Then, after German reunification in 1990 and under the joint influence of European integration, a general policy of economic liberalization and the acceleration of globalization, the private banks gained economic importance and market share until the global financial crises started in 2007/2008. The crisis affected the large private banks more than other banking groups because they were more involved in investment banking activities.

2.2. The German banking system as part of the German financial system

For a very long time, the German banks have been the most important part of the German financial sector and even of the entire German financial system[2]. Financial systems are often classified as being either bank-based or capital-market-based. Together with Japan, Germany is considered as the prototype of a country with a bank-based financial system (e.g. Allen and Gale 2001). This classification is still largely appropriate for Germany today,

[2] While the term 'financial sector' refers to the totality of the financial institutions of a country, we use the term 'financial system' in the sense of the interplay between the financial sector as the supplier of financial services and the 'real economy' as its customer. Of course, the financial sector is a central element of the financial system. See Schmidt and Tyrell (2004) on the importance of this terminological distinction.

even though the extent to which the German financial system as a whole is bank-dominated is less evident now than only around the year 2000.

Bank dominance is reflected in the fact that banks are more important in their roles as a source of investible funds for non-financial firms and as an outlet for household savings than other financial intermediaries such as pension funds and life insurance companies as well as in comparison to organized capital markets. Moreover, in a bank-based financial system the relationships between banks and their corporate clients tend to be close according to the so-called house-bank model. Banks often also have a strong influence on many other institutions within the financial sector such as, for instance, investment funds, which tend to be part of large banking groups. Finally, banks also play an important role in the corporate governance of non-financial firms. In all of these respects, bank dominance was evident in Germany at least around the turn of the century (Schmidt and Tyrell 2004).

Well-functioning financial systems are composed of elements which complement each other and are consistent in the sense of 'fitting together well'. For many years, the German bank-based financial system was consistent, as is the case for the capital market-based financial systems of Great Britain and the United States. In Germany, the dominant role of banks in the financial sector used to complement the strong role of bank financing for non-financial firms, the prevalence of block-holdings of listed firms, the liberal approach to banking regulation and the Pay-As-You-Go pension system, which does not rely on accumulated funds.

An additional element of the traditional German financial system was the strong role of the three largest private banks in the corporate governance of large German corporations. In contrast to the previously mentioned features, this aspect has by now virtually disappeared. This change poses a true challenge to the former consistency of the German financial system and raises the question of whether there is a tendency of the entire financial system to converge towards a stronger capital-market-orientation. However, as we will argue below, even if this should be the case, it would not be due to a change in the structure of the banking system but rather be a consequence of changes in the business model of the largest banks and, as a parallel development, in the corporate governance regime of Germany's large corporations.

3 The structure of the German banking system

3.1. Overview

By international standards, the most important and most remarkable feature of the German banking system is that it is still today a three-pillar system. There are three parts of the banking systems and correspondingly three important groups – or types – of banks that differ considerably in terms of their institutional structures and also compete fiercely for market share.

Pillar one is made up of private credit institutions, both according to their legal forms as well as their ownership structures. Since they mainly have private owners, it can be assumed that they are also clearly more profit oriented than banks belonging to the two other groups. The group of private credit institutions is quite heterogeneous. It comprises several subgroups. One of them are the so-called 'big banks', which maintain large branch networks and offer all kinds of banking services to a wide spectrum of clients in Germany and worldwide. [3] Then there are a considerable number of smaller banks called 'regional banks and other commercial banks' in official statistics. In terms of total assets, pillar one makes up about 40 percent of the entire German banking system; of which two thirds are contributed by the big private banks and one third is contributed by the other, smaller credit institutions.

Pillar two is the savings bank group. It also consists of two parts: that of the local savings banks and that of the regional banks called *Landesbanken*. In terms of aggregate total assets, the entire savings bank group is about as large as that of the private credit institutions, and the respective total assets of the local savings banks and the *Landesbanken* are of almost equal size.

[3] 'Big banks' (*Grossbanken)* is also the term used in the statistics and publications of the Bundesbank, Germany's central bank, designating banks with a large network of branches.

Pillar three is the cooperative banking group. It comprises a larger number of independent institutions than the other two groups, whereas in terms of total assets it is only about half the size of the two other pillars. The cooperative banking group can also be subdivided into two parts: the local cooperative banks and the central financial and non-financial institutions of the group.

Strictly speaking, the German banking system extends beyond the three pillars as there is also a fourth group, called 'other banks'. Among them are mortgage banks, building and loan associations and the so-called special purpose banks, which include promotional banks ('*Förderbanken*') such as the government-owned KfW (Kreditanstalt für Wiederaufbau) Banking Group, currently Germany's second largest bank. Since this fourth group is so heterogeneous, it is not referred to a fourth pillar. In what follows, we do not take this group into account.

An overview of the development of the 'three pillars' of the German banking system from 2000 to 2014 is provided in the following tables. Table 1 shows the numbers of institutions and branches.

Table 1: Number of banks and branches by banking groups in 2002 and 2014

	Institutions				*Branches*			
	2000		*2014*		*2000*		*2014*	
	number	*(%)*	*number*	*(%)*	*number*	*(%)*	*number*	*(%)*
Private commercial banks	294	(10,7%)	296	(16,2%)	6.520	(15,1%)	9.955	(28,2%)
Big banks	4	(0,1%)	4	(0,2%)	2.873	(6,6%)	7.443	(21,1%)
Regional banks and others	200	(7,3%)	177	(9,7%)	3.567	(8,2%)	2.364	(6,7%)
Branches of foreign banks	90	(3,3%)	115	(6,3%)	80	(0,2%)	148	(0,4%)
Savings banks group	575	(21,0%)	425	(23,2%)	17.530	(40,5%)	12.368	(35,0%)
Savings banks	562	(20,5%)	416	(22,7%)	16.892	(39,0%)	11.951	(33,9%)
Landesbanken and DekaBank	13	(0,5%)	9	(0,5%)	638	(1,5%)	417	(1,2%)
Cooperative banks group	1.796	(65,5%)	1.052	(57,5%)	15.357	(35,5%)	11.280	(32,0%)
Cooperative banks	1.792	(65,4%)	1.050	(57,4%)	15.332	(35,4%)	11.269	(31,9%)
Central institutions	4	(0,1%)	2	(0,1%)	25	(0,1%)	11	(0,0%)
Other banks	75	(2,7%)	57	(3,1%)	3.887	(9,0%)	1.691	(4,8%)
Realkreditinstitute	31	(1,1%)	17	(0,9%)	192	(0,4%)	48	(0,1%)
Bausparkassen	31	(1,1%)	21	(1,1%)	3.677	(8,5%)	1.619	(4,6%)
Banks with special tasks	13	(0,5%)	19	(1,0%)	18	(0,0%)	24	(0,1%)
All banks	2.740	(100,0%)	1.830	(100,0%)	43.294	(100,0%)	35.294	(100,0%)

Source: Based on Deutsche Bundesbank 2015.

Table 2 contains information on the groups' market shares with respect to total assets, loans to non-banks and deposits and borrowing from non-banks for the years 2000 and 2014.

Table 2: Market share by banking groups in 2000 and 2014

	Total assets		*Loans to non-banks*		*Deposits and borrowing from non-banks*	
	2000	***2014***	***2000***	***2014***	***2000***	***2014***
Private commercial banks	28%	39%	26%	28%	26%	36%
Big banks	16%	25%	15%	12%	14%	15%
Regional banks and others	10%	11%	10%	15%	12%	17%
Branches of foreign banks	2%	3%	1%	2%	0%	4%
Savings banks group	35%	28%	35%	36%	39%	34%
Savings banks	16%	14%	19%	22%	26%	25%
Landesbanken and DekaBank	20%	14%	16%	14%	13%	9%
Cooperative banks group	12%	14%	12%	16%	18%	18%
Cooperative banks	9%	10%	11%	15%	17%	17%
Central institutions	4%	4%	2%	2%	1%	1%
Other banks	24%	20%	26%	20%	17%	12%
All banks (in billion Euros)	6.148	7.853	3.479	3.901	2.261	3.339

Source: Based on Deutsche Bundesbank, 2015.

3.2. Private Commercial Banks

The most important private commercial banks are those with large branch networks. For many years this group had consisted of three banks, Deutsche Bank (founded in Berlin in 1870), Dresdner Bank (founded in Dresden in 1872) and Commerzbank (founded in Hamburg in 1870). In their early years, these banks, as well as other similar banks of that time which have since then disappeared for various reasons, were almost exclusively focused on serving the financial needs of corporate clients. They played an important role in the creation and growth of Germany's large corporations, helping them to expand, get access to the stock market, build up international operations and acquire other firms through mergers and acquisitions.[4] Therefore, the big banks were crucial in the process of Germany's 'belated industrialization' (Gerschenkron 1962).

Out of their original role emerged the close relationship of the big banks with the German industry. The big banks became the house-banks of large firms and they maintained this role until the turn from the 20th to the 21st century. Being the house-bank means first of all being

[4] A famous example for the latter function is the merger between the two formerly competing car makers Daimler and Benz, which was engineered by Deutsche Bank in 1926.

the main provider of credit, which had for a very long time been the dominant form of external finance for German corporations, and of other financial services including those now called investment banking services. In most cases the house banks also played an important part in the governance of the corporations. This governance role was supported by the banks' own substantial shareholdings, seats on the supervisory boards of corporations and depository voting rights in the general shareholder meetings based on the shares which they held in custody for their private clients.

Only in the 1960s, the big banks opened up to the general population as clients and expanded their branch networks substantially. However, their business focus was still almost exclusively on Germany. Due to two world wars they had lost their foreign subsidiaries twice and therefore had for a very long time after World War II kept their international ambitions at bay.

Another structural transformation began in the 1990s, when the three big banks started to reach out for international markets and attempted to become important players in the area of investment banking. Deutsche Bank was the leader in this process and was very successful with its new strategy. Though with less determination and evidently with less success, Dresdner Bank and Commerzbank imitated Deutsche Bank's new strategy. One consequence of this reorientation was that Deutsche Bank, and to a certain extent the others too, discontinued their role as house-banks, sold most of their substantial block-holdings in German corporations, and stopped taking seats on supervisory boards.

In 2000, an attempted merger between Deutsche Bank and Dresdner Bank failed, and in the following years the situation for Dresdner Banks deteriorated consistently. Just before the outbreak of the global financial crisis in 2007, Commerzbank, traditionally number three among the big banks, acquired Dresdner Bank, traditionally number two. As it turned out, this acquisition was a (too) heavy burden for Commerzbank, which had to be rescued by the German government in the course of the global financial crisis. Still, as of 2015, the German government holds around three quarters of the shares of Commerzbank.

Almost in parallel with the demise of Dresdner Bank and the quasi-nationalization of Commerzbank, the composition of the group of banks which the German central bank, the Bundesbank, classifies as 'big banks' changed substantially. In addition to Deutsche Bank and Commerzbank this group now comprises, HypoVereinsbank (HVB) and Postbank. HVB has grown out of the merger in 1998 of two former regional banks, Hypobank and Bayerische Vereinsbank, operating almost exclusively in the southern state of Bavaria. After the merger, HVB expanded into Central and Eastern Europe, and in 2005 it was acquired by the Italian banking group UniCredit. Postbank had formerly been a part of the government owned postal service. It was spun off in 1990 and taken public in 2004. In 2010, Deutsche Bank bought up the majority of its shares, but in the second quarter of 2015 decided to sell Postbank AG again in a yet to be specified way. HVB, and even more so Postbank, have large branch networks but, unlike Dresdner and Commerzbank, have never been involved in a substantial way in the financing and the governance of large German corporations. As Commerzbank has largely withdrawn from its former role and now focuses on serving small and mid-sized corporate clients and the general population, and Deutsche Bank has reoriented itself to be an international investment bank, the old 'triad' of Germany's big banks and their close relations to the top layer of German corporations is a thing of the past.

In addition to the big banks, there are some 200 small private banks. Most of them are specialized in some respect. Some are truly regional banks, others focus on certain industries as their main clientele, and others offer only a narrow range of services. Finally, the group of private banks also comprises the (small) subsidiaries of foreign banks.

3.3. The Savings Bank Group

The most important banks with government involvement in Germany are those of the so-called savings bank group. This group comprises some 415 local savings banks, seven *Landesbanken* as regional financial institutions, the Deka Bank AG as a central financial institution and a considerable number of specialized financial and non-financial organizations such as building societies and data processing centers. In addition, there is a system of associations that represent the group vis-à-vis policy makers and the general public. All in all, as of 2014, the group comprises more than 500 institutions and employs 341,000 staff members.

The traditional core of the group is made up of the local savings banks. They are legally independent small and mid-sized banks. They have many branches and mainly serve their local clients. Saving banks have, for decades, been the market leaders in lending to small and medium sized firms, in mobilizing local deposits and in granting loans to private households, especially mortgage loans.

Almost all local savings banks operate under a public law regime. They are closely affiliated with the public bodies dominating the local area in which they operate and to which they are by law also largely confined in their operations. The respective municipality or the county[5] are not owners in a legal sense but rather owner-like 'supporting institutions'[6], which have certain property rights and obligations. But these rights are weaker than those of the owners of a private bank. In most cases, the mayor or the political head of a county is the chairperson of a savings bank's 'administrative council'[7]. But the extent to which a city or a county can claim a share of the profits of a savings bank is limited. The overwhelming part of a savings bank's profit is retained to strengthen its equity or used for various public welfare projects. This is in line with the fact that according to the relevant savings banks laws the purpose of a savings bank is to support the local economy and the local population and not to make as much profit as possible. However, despite their 'promotional mandate', savings banks are, by law, required to operate in an efficiency oriented and profitable way.[8]

[5] In an increasing number of cases, the supporting political entities responsible for a local savings bank are by now not merely one municipality or county (*Landkreis*) but groups of municipalities or counties.

[6] The German term is 'Träger', a term for which there is no proper English translation.

[7] Formerly, a supporting entity had the formal responsibility to assure the functioning of 'its' savings bank (the so-called maintenance obligation) and also to guarantee all obligations of a savings bank (the so-called guarantee obligation). These public guarantees were abolished in 2005, based on an agreement between the German Government and the EU Commission. This agreement was reached in 2001 after the Association of Private Banks had filed a complaint against the public banks, arguing that these forms of public support were incompatible with the EU rules concerning state aid and EU competition laws; for details see Schmidt (2009). However, as far as savings banks are concerned, these guarantees were never invoked after World War II.

[8] The legal and economic aspects of the promotional mandate are discussed in detail in Brämer et al. (2010).

While all local savings banks are formally independent legal entities, they are at the same time also parts of a dense integrated network of affiliated institutions.[9] In addition to the local savings banks, this network comprises the *Landesbanken*, the Deka Bank and other central financial institutions, a host of non-financial support institutions, such as data processing centers, and associations of savings banks at the regional and the federal level, as well as a complex common guarantee system managed by the associations. Being part of this network enables the local savings banks to combine flexibility, autonomy and proximity to their local clientele with the economies of scale and scope which outsourcing certain functions to central institutions belonging to the network may make possible.

This network structure, which already emerged more than one hundred years ago, can be considered as the basis for the enduring success of the savings banks as a group. Its functioning relies heavily on the so-called regional principle, i.e. the rule that the operations of a savings bank are, in principle, confined to the catchment area of the political entity that supports it. Because of the regional principle, the individual savings banks and their managers tend to regard their peers as partners and not as competitors, a fact that is a prerequisite for a close and fruitful cooperation.

The second main part of the savings bank group is comprised of the *Landesbanken*, a term which can literally be translated as 'state banks'. However, the term 'regional banks' would capture their traditional nature more accurately. Some of them have the legal form of a corporation and some are public law institutions. Owners and shareholders or, as the case may be, sponsoring institutions are one or several federal states in which a state bank is domiciled and the local savings banks of the region.

The traditional functions of a *Landesbank* have been to serve as the main relationship bank of the respective state or states (hence their name), to act as the clearing bank for the local savings banks in their region and to provide those services to clients for which a local savings bank would be too small. This includes co-financing larger loans to local clients, various investment banking services and most international operations. However, over the years the

[9] The German term, for which there is also simply no English translation, is 'Verbund'. The fact that there is no English term that corresponds to 'Verbund' is that in English speaking countries such networks do not exist.

scope of their operations has increased considerably. During the 1980s and 1990s, several *Landesbanken* started to operate on a national and even international scale and to compete vigorously with the large private banks. In some cases, they also began to compete with the savings banks which they were formerly only supposed to support. Following several episodes of financial crises over the past decades, several *Landesbanken* had to be rescued by merging them with stronger ones such that in 2015 only seven remain.

3.4. Cooperative banks

In many respects the cooperative banking group is similar to the savings bank group. At its core are local, small to mid-sized cooperative banks. They are locally rooted and they have a rather simple business model which mainly consists of mobilizing local deposits and lending them out to local SMEs and households. Originally created in the middle of the 19th century to fight financial exclusion, their objective, to this day, is to support the business activities of their members, not to maximize profit.

Like the local savings banks, local cooperative banks are independent legal entities which are at the same time embedded in a dense network of affiliated institutions, which also comprises two central financial institutions[10], a considerable number of other centralized financial institutions that perform special functions for the local banks and their clients[11], many non-financial support institutions and two layers of associations, which also run a deposit insurance system. The regional principle applies also for the cooperative banks and provides the economic basis for the close cooperation within the network. At year-end 2014, the German cooperative banking group comprised around 1,050 institutions, out of which some 1,000 are local cooperatives. The total staff amount to almost 200,000.

[10] A central financial institution which serves the cooperative banks in almost all parts of Germany and their clients is DZ-Bank AG. WGZ-Bank AG is the central hub for the cooperative banks in the German federal state of North-Rhine-Westphalia. It is the only regional central bank that remained after a process of consolidation starting in the 1960s. While we finalize this text, the news breaks that DZ Bank AG and WGZ Bank AG will merge in 2016.

[11] Among them are the Bausparkasse (Building Society) Schwäbisch-Hall and the asset management company Union Investment. Both are among the largest institutions of their kind in Germany.

The specific feature of any cooperative – and thus also a criterion for distinguishing cooperative banks from other banks – is its institutional structure. Cooperatives are organized like clubs, which is why the owners and providers of equity are called members. Three principles shape their institutional structure. The 'principle of self-help' implies that they are self-governed private organizations. According to the 'principle of identity', members are their main clients and conversely many of their clients are also members. Then there is the 'democratic principle', which manifests itself in the rule that one member has only one vote in the annual general meetings, irrespective of how many shares he or she may hold. Moreover, members cannot sell their shares if they want to exit. They can only hand them back and in return retrieve what they once invested, plus their part of accumulated profits. This feature has both negative and positive implications. On the negative side, it implies that the members' incentives to monitor the performance of the managers are weak since they hardly benefit from policies that would increase the value of their shares as long as a default is avoided, and they cannot exert pressure on management since it is impossible to accumulate voting rights. As a consequence, the incentives of the managers to perform well and to increase the going-concern value of cooperative banks are also weak. Evidently, this constitutes a handicap for cooperative banks in their competition with other banks. This deficiency of cooperative governance is, however, compensated by the fact that the regional associations perform an audit function which does not only refer to the accounting side of a cooperative bank but also oversees whether the management of a cooperative bank is doing its job carefully, efficiently and in the spirit of the mandate to support the members. [12]

On the positive side, the 'democratic principle' and the limited incentives for management to achieve high profits imply that potentially powerful members cannot dominate a cooperative and make its management exploit weaker members, for instance by paying low interest rates on deposits. For the same reason, the incentives to incur high risks as a means of achieving high profits are weak. This incentive structure has allowed the cooperative banks to survive many challenges over the past 150 years.

---

[12] On the effectiveness of this monitoring role of the associations see Ayadi et al. (2010), p. 38.

3.5 The special features of the German banking system

The foregoing characterization of the three main banking groups serves as a basis for briefly summarizing what might be the most important features of the German banking system and what makes it special in comparison to those of other countries. Most of these features are intrinsically related to the three pillar system.

1. Only a minority of all German banks, representing not even half of total bank assets, is private and at the same time exclusively profit oriented. Banks with government involvement have a mandate to support the local or regional or, as in the case of the KfW-Banking Group, the national economy. In the case of cooperative banks, the dominant objective is also not to maximize bank profitability, but rather to support the business of their members. Naturally, these mandates limit their profit orientation, but whether they also affect their profitability in a negative way is an open issue (see below).

2. One positive consequence of this limited profit orientation is the stability of the German banking system. Before the global financial crisis started in 2007, Germany was almost unique among the industrialized countries in that it had not experienced a major banking crisis after the Second World War.

3. Still today, the local savings and cooperative banks adhere to the so-called regional principle. This principle means that the local banks that belong to the same network are not expected to compete with each other. While intra-pillar competition is still limited, the level of inter-pillar competition is very high.[13]

4. Not least because of the high level of inter-pillar competition the level of bank profitability appears to be low by international standards.

5. The level of bank concentration is also low by international standards, at least if one counts the individual savings and cooperative banks as individual institutions.[14]

[13] See Fischer (2005) and Fischer and Pfeil (2004).

[14] However, if one considers all savings and cooperative banks, respectively, as being merely parts of one highly decentralized group, the level of bank concentration in Germany is in line with that of other countries.

6. Almost all German banks are universal banks. They offer at least some services that one can classify as commercial and investment banking services. The predominance of the universal banking model is based on the German banking law and it conforms to the tradition of the German banks and to the expectation of their clients to obtain all banking services from one institution.

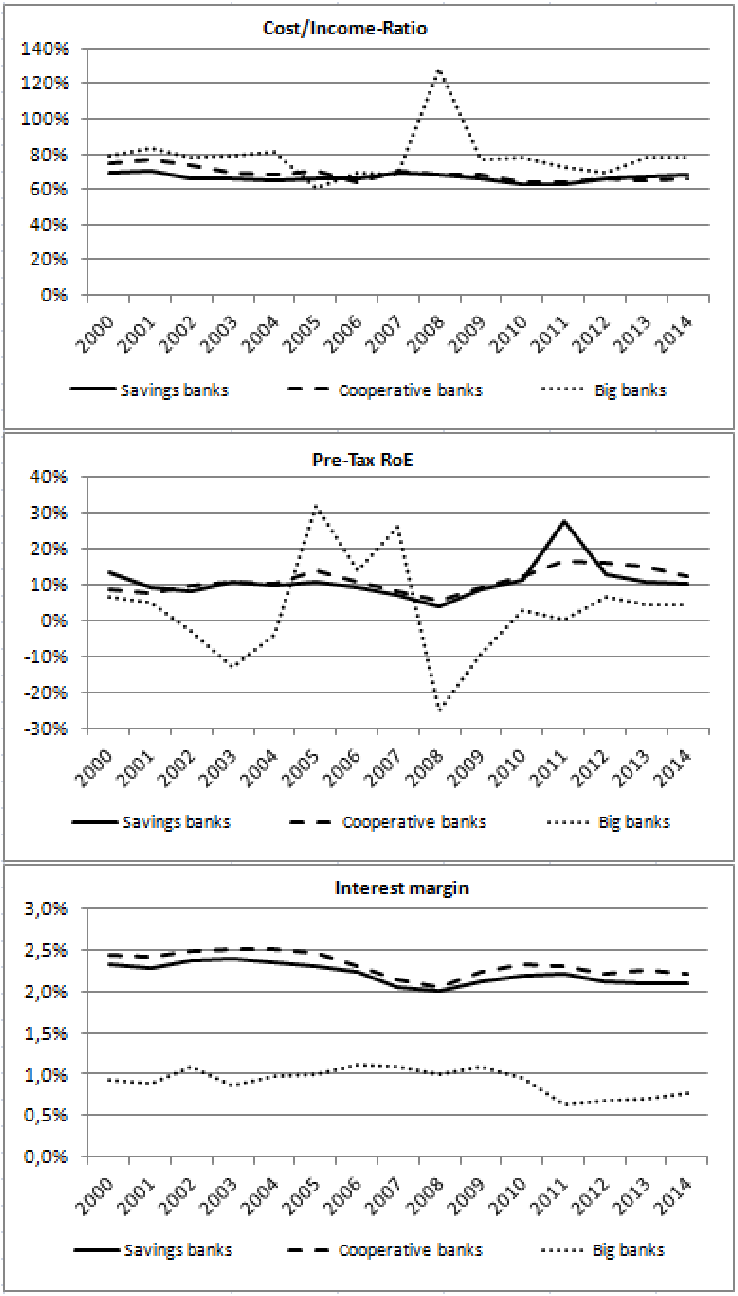
7. Close relationships between banks and their clients also used to prevail in the market for corporate banking services. This is why, at least until some years ago, so-called house-bank relationships used to exist between large banks and their large exchange listed corporate clients (Elsas and Krahnen 2004). Most of these traditional house-bank relations have by now disappeared. However, house-bank relationships still exist and are important. Today, many large and medium-sized firms that belong to the so-called *Mittelstand* have a main bank or a house-bank, which is, however, now more often a savings or a cooperative bank rather than a large private bank.

8. Traditionally, the level of foreign bank presence in Germany has been quite limited. In view of the peculiarities of German banking described above, it is not surprising that foreign banks are reluctant to enter the German market in any other way than by buying a German bank.

3.6. A comparison of the three banking groups

Figure 1 provides performance indicators of German branch banking and allows for an assessment of the financial situation of those banks in the three-pillars that have extended branch networks and are therefore comparable.

Figure 1: Performance indicators of German branch banking



Source: Deutsche Bundesbank, several monthly reports

The first panel shows that the cost-income ratio is lower for savings banks and cooperative banks than for the large commercial banks. As shown in the middle panel, return on equity is on average higher and clearly more stable for savings banks and cooperative banks. The last panel shows that the interest margins for all banks have been steadily declining, but throughout the years the interest margins are higher for those banks that mainly rely on local deposits as their main funding source.[15]

Not only standard performance indicators show that the local banks performed about as well and, in general, even better than the private big banks. Also more elaborate ways of analyzing and comparing performance confirm this result for the years before the financial crisis began in 2007.[16]

4 Challenges facing German banks

4.1. German banks and the global financial crisis 2007/2008

Some German banks were severely hit by the global financial crisis 2007/2008. Two specialized private banks, Hypo Real Estate (HRE) and Industrie-Kreditbank (IKB) and the two 'big banks' Deutsche Bank and Commerzbank experienced large losses due to overly risky investments and off-balance sheet activities of a precarious nature in the years preceding the crisis. HRE, IKB and Commerzbank had to be rescued with substantial government interventions, which went as far as a full nationalization in the case of HRE. Only Deutsche Bank prided itself for surviving the crisis without government help.

In contrast, the local savings and cooperative banks weathered the storm largely unharmed. Almost all of them managed to remain stable and even profitable during the crisis years.[17] This is foremost due to their traditional business model and corresponds to their mission and tradition. They benefitted from their strong customer deposit-gathering ability and their close client relationships and the fact that their by-laws prevent them from being involved in many of the more risky activities.

[15] The performance indicators of the central financial institutions of the savings bank group and the cooperative bank group, which are not shown in Figure 1, are largely similar to those of the big banks.

[16] See for example, Altunbas et al. (2001) and Ayadi et al (2009 and 2010). Their empirical findings may appear surprising given that these banks pursue the dual objective of profit and benefit for their customers. Probably less surprising, but equally relevant, is the empirical evidence that savings banks and cooperative banks are on average less risky than privately-owned commercial banks (Beck et al., 2009).

[17] One cooperative bank, Apo Bank, also reported a loss in 2008. Interestingly, it is an atypical cooperative bank since it is not regionally focused and instead serves two professions, those of doctors and pharmacists, as its clientele.

Nevertheless, the savings banks group as a whole was affected by the financial crisis. Four *Landesbanken* (HSH Nordbank, BayernLB, SachsenLB and WestLB) suffered greatly, indirectly also causing losses to other institutions in the group, due to their roles as co-owners and business partners. This is one reason why some *Landesbanken* were merged with stronger ones, were largely liquidated, or are currently re-aligning their business models.

Being even less involved in structured finance and capital markets products than the savings banks, the cooperative banks survived the financial crisis better than any other banking group.

4.2. Challenges resulting from the new regulatory regime

Large German private and public banks have not only been negatively affected by the global financial crisis, they, as well as all other banks, now also have to face by the challenges posed by the new regulatory regime that was put in place after the crisis. Some parts of the new regime have already been implemented, and others are in the process of being put in place.

Higher capital requirements and strict liquidity rules, based on Basel III and transformed into EU law trough CRD IV, are likely to be the most important challenges that German banks face. The requirements are equally severe for banks that do not have access to the public equity market as for those that have suffered from crisis induced losses and find it difficult to issue new shares – in other words, it affects all types of German banks.

The Single Supervisory Mechanism (SSM) creates additional challenges as it requires banks to deal with new supervisors who may not be fully familiar with the peculiarities of the German banking system and the legal and institutional forms of a large number of German banks, even though savings and cooperative banks are not subject to direct EU supervision in the framework of the SSM. Current plans to introduce a single deposit insurance scheme for all banks, a part of the EU Banking Union project, might add to these difficulties, in particular for the small banks and their networks.

Apart from Basel III/CRD IV and SSM, there are many new regulatory rules and reporting requirements with which all banks have to comply, forcing them to increase the relevant staff substantially, thereby significantly raising the costs of banking. This factor is particularly burdensome for the numerous small German banks and may induce a merger wave among them.[18]

Finally, a new German law already in force and additional plans at the EU level which will require a certain degree of separation between commercial and investment banking activities is a threat to the established business models of many large banks and forces them to adjust these models accordingly.[19]

The adjustment process induced by the hard lessons of the global financial crisis and the ensuing new regulatory regime started some time ago. Most German banks have already redesigned processes, products and, among other things, compensation systems. How far these changes will ultimately go is impossible to assess in the present situation. However, there are reasons to believe that they are not likely to affect the traditional German banking structure, since the networks (‘*Verbünde*’) tend to shield the local savings and cooperative banks from the most serious negative consequences (see Hönig 2014).

5 German banking in an international comparison

Today, the banking structures differ significantly between European countries. This is related both to historical reasons and to developments over the last decades. In every country, we find a small number of large banks, which typically are the most important banks in terms of total assets and numbers of branches. In some countries, e.g. in Great Britain, the big banks are by far the dominant players in the banking market, while in others they share the market with savings banks and/or cooperative banks. Until today, savings banks play an important role in Germany, Austria and Spain, but not any more in several other countries. In France and Austria cooperative banks are powerful market participants, while their role is very limited in some other countries.

[18] The list of new regulations and reporting requirements increases continuously. A nearly complete list as of the time of writing and an assessment of their cost implications for German banks is provided in Hönig (2014).

[19] Germany has already implemented core elements of the separation concept in a national law, informally called ‘Trennbankengesetz’. The plans of the EU Commission, which are based on the recommendations of the High Level Expert Group (HLEG 2013), go even further than the German law (KPMG 2014).

Formerly, these national differences were much less pronounced. Until about 20 years ago, almost all European countries had a ‘three-pillar’ banking system. However, since then many countries have implemented far-reaching reforms, which have mainly affected the two ‘pillars’ of the savings and cooperative banks. In a nutshell the changes are as follows:

- In Austria the three networks of formerly independent local savings and cooperative banks have been transformed in such a way that their respective central institutions have gained far reaching power over the now *de facto* subordinated local and regional institutions.
- In France savings banks have been converted into yet another group of cooperative banks and have been phased out as a special type of financial institutions.
- In Italy, savings banks were partially privatized and several of them were integrated into large commercial banks like UniCredit and INTESA, and the regional principle was abolished.
- In Spain, the savings banks have been privatized and the regional principle was abolished.

In some countries the changes have gone even further. For instance in Belgium savings and cooperative banks have essentially disappeared, and in Great Britain the former public savings bank (TSB) was sold to Lloyds Banking Group, and several cooperative banks, the so-called building societies, were converted into corporations and some of them were sold to large private banks.[20] Only Germany stands out as the special case in which there was no substantial change in the banking structure during the last decades.[21] As far as their legal and institutional structures and their economic roles are concerned, the German savings and cooperative banks are today almost exactly as they had been 50 and even 80 years ago.

Several factors drove the changes in Europe. Certainly, the political climate of the time and EU-wide harmonization were important. However, there was also the presumption that in

[20] Most of the converted building societies or the private banks that had bought them ran into problems during the financial crisis. The best known examples are Northern Rock, a converted former building society, and HBOS which was formed by the merger of Bank of Scotland with the former converted building society Halifax in 2001. HBOS was eventually taken over by Lloyds TSB in the midst of the financial crisis.

[21] An exception is the phasing out of public guarantees for *Landesbanken* and local savings banks since 2005.

their former set-up, small local banks, whose legal form differs from that of a corporation owned by private shareholders, were not competitive. To a certain extent, this may have been true, and it may have been due to the fact that in most countries savings and cooperative banks had long been subject to different and more restrictive regulation than 'normal' banks. Furthermore, their small size and/or their 'unconventional' institutional and governance features may have reduced their competitiveness.

As one of the motives for initiating far reaching reforms was the belief that the efficiency of local savings and cooperative banks is lower than that of other banks with comparably large branch networks, it is instructive to take a closer look at the situation in Germany, since the German experience does not support this belief. Comparative studies show that this is in fact almost the same in many other countries. The presumption that there are differences in efficiency resulting from the legal form and the ownership structure could not be supported empirically until the start of the global financial crisis in 2007.

In the financial crisis, most national savings and cooperative bank systems even fared better than most of their competitors from the ranks of large private banks. However, there are exceptions. The most important one is that of the Spanish savings banks. The *cajas* were very seriously affected by the crises. Most probably their current problems are related to the fact that they had been transformed in an unbalanced way a few years before the crisis[22] and that the regional principle was abolished.[23] As a consequence, the *cajas* started to compete vigorously among one another, putting pressure on their profitability. By now, there is hardly any cooperation between them left, nor a network that may strengthen them, provide support and impose discipline on the individual *cajas*.

6 Results of recent research on the German banking system

As we pointed out above, by international standards, the role of the state is relatively strong in German banking. There is an ongoing debate as to the question of whether government

[22] A critical assessment of the governance of Spanish savings banks after the reforms – and thus of the half-hearted privatization – can be found in Mai (2004).
[23] The causes and consequences of the problems of the Spanish cajas are investigated in Ilueca et al. (2014).

involvement in banking is desirable or not and to what extent the government should play an active ownership role in the banking sector.

On the one hand, a large part of the existing research on public banks uses international data from a broad range of countries and argues that government-owned banks are not performing well and are allocating credit in an inefficient way and that agency problems, political influence, fraud and corruption are a fundamental characteristic of all public banks (e.g., La Porta et al. 2002; Sapienza 2004; Dinç 2005; Illueca et al. 2014; Carvalho 2014). On the other hand, some authors emphasize and also document positive effects of government ownership in banking on economic development and social welfare (e.g., Stiglitz 1993; Burgess and Pande 2005; Butzbach and von Mettenheim 2014).

The empirical banking literature that uses data from Germany focuses mostly on the comparison of banks with government involvement with privately owned banks. Since government involvement in the banking industry is more extensive in Germany than in most other comparable countries, we believe that it is instructive to provide an overview of the results of some recent empirical banking research that uses data from Germany.

For instance, Engel and Middendorf (2009) analyze differences in the investment and financing behavior of firms that are clients of either German savings or cooperative banks and find that there does not seem to be a strong link between firms' financial constraints and whether the role of the government in the bank is important or not. On the other hand, Behr et al. (2013) find evidence that the lending of German savings banks helps reduce financial constraints of SMEs. These authors also show that the savings banks do not underperform nor that they take more risks than the privately owned cooperative and commercial banks. In a related study, Behr et al. (2015) compare the lending cyclicality of German savings banks to that of German cooperative banks and find that the lending behavior of the savings banks is significantly less cyclical[24]. This implies that banks with some government involvement might help to smooth business cycles because they do not purely focus on profit maximization, but also pursue other goals such as supporting local

[24] The mentioned study also includes a comparison of the lending cyclicality between savings and privately owned commercial banks, but this is not the central point of the study.

economies. In line with this idea, Hakenes et al. (2015) show that German savings banks play an effective role in enhancing local economic development, in particular in underdeveloped regions.[25]

But there are also negative aspects of government involvement in banking. Puri et al. (2011) analyze the effect of the global financial crisis 2007/2008 on retail lending using data from German savings banks. They find that in the years after 2008 savings banks with substantial (indirect[26]) equity holdings in *Landesbanken* reduced retail lending more than the savings banks from areas in which the savings banks are not co-owners of a *Landesbank* that experienced severe problems in the course of the financial crisis. The authors further show that this effect was particularly pronounced for smaller and more liquidity-constrained savings banks. Another negative effect of the role the state and its representatives play in German banks is documented by Gropp et al. (2014) who argue that government involvement in the form of public guarantees may be associated with moral hazard: German savings banks took more risks at the time when public guarantees still existed compared to the time when such guarantees had been abolished. Interestingly, Fischer et al. (2014) show the opposite effect: the removal of public guarantees for *Landesbanken* induced these banks to lend to riskier customers and this effect was most pronounced for the *Landesbanken* with the highest expected decrease in franchise value in the event of a removal of the guarantees. Finally, Gropp et al. (2015) argue that public bank guarantees, which existed for the savings bank group in Germany until 2005, reduced allocative efficiency in the economy.

As some of the studies we have mentioned argue that government involvement in the German banking sector may indeed be desirable while others suggest the opposite, we think that it is impossible to come to a final conclusion regarding this important structural feature of the German banking system. The reason is that none of the existing studies provides a full-fledged welfare analysis that would allow such a conclusion. Hence, whether the

[25] For comparisons between different banking groups along other performance dimensions and with different methodologies in various European countries and an overview of the relevant literature, see Ayadi et al. (2009) and Ayadi et al. (2010).

[26] 'Indirect' because in those cases where savings banks hold equity participations in a *Landesbank* this typically takes the form of a participation of the respective regional associations of local savings banks and not of the savings banks themselves.

German banking system would be better off with or without a strong role of the state, remains an open question in our view. This is not only so because very much depends on how exactly the state's role is implemented and used and on how state agents behave and are controlled, but also for methodological reasons: Any attempt to provide a final answer would have to be based on an empirical setup that compares all relevant dimensions (such as efficiency of the banking sector, credit supply, social costs, etc.) in a world with the existence of banks with government involvement to a world without those banks with all the other elements of the economy being optimally adjusted to the fact that state interventions exist or, as the case may be, do not exist. Such a general equilibrium analysis poses theoretical and empirical challenges that appear extremely hard to meet. Nevertheless, we can at least argue that having the state playing a prominent role in the banking sector can indeed yield positive effects. Therefore, the German banking system is not only interesting because of its distinct and unique structure, but it also seems to be a system that is functioning quite well - despite the strong role of the government or perhaps rather because of it. More research is definitely needed to understand better whether a strong role of banks with government involvement is harmful or rather beneficial.

However, even if at the present state of knowledge one were to firmly conclude in the spirit of La Porta et al. (2002) that a strong role of public banks is rather not desirable from a public policy standpoint, one would have to acknowledge that having a banking system with a diversified legal and ownership structure has one important advantage: Diversification provides a protection of risks. In the context discussed here, it protects against the danger that the 'current state of knowledge' would at some future time turn out to be erroneous and that it would then prove desirable to have government involvement in banks and the knowledge of how to manage and use this feature in a sound and efficient manner. In this sense, one can plead for maintaining banks with government involvement – and also cooperative banks – and thus for maintaining diversity in the banking system with the same argument with which ecologists plead for biodiversity and for safeguarding endangered species: They help us to retain a kind of social capital whose value we might overlook because we do not see it today.[27]

7 Concluding remarks

The German banking system is quite unique as it comprises three pillars of high importance: privately owned commercial banks, including large banks with extensive branch networks; smaller, privately owned and regionally focused credit cooperatives; and public banks (or banks with government involvement) comprising the small, regionally oriented savings banks and the larger *Landesbanken*. The banks in these three pillars have coexisted for more than 150 years with relatively little structural change over time.

The German banking system has been a relatively stable banking system, with no major banking crisis in recent history, although some of the commercial banks – in particular Commerzbank and Hypo Real Estate, and some of the *Landesbanken* – were massively affected by the global financial crisis in 2007/2008 and needed strong government support or were forced to merge. Some observers and recent empirical research attribute the overall stability of the German banking system to its unique structure and the stabilizing role that the savings and cooperative banks play for local economic development due to their lower lending cyclicality.

We have no final verdict on the question whether the strong role state-related entities play in the German banking system is for better or for worse. But we believe that having banks with some government involvement as an integral part of the banking system has at least some important advantages. A substantial part of the recent research on the German banking system seems to support this view, but more research in this area is needed.

Moreover, we believe that the structure of the German banking system will not change in a fundamental way in the short- and medium-term future, because this mixed system has functioned well in the past and there are no strong indications that this will change nor convincing reasons why it should change. However, it will be interesting to observe how

[27] For this argument, see Schmidt et al. (2014).

German banks will cope with the challenges that are waiting ahead, in particular with the ongoing fundamental changes in the regulatory environment.

References

Allen, F., Gale, D. (2001) *Comparing Financial Systems*, Cambridge, UK: Cambridge Univ. Press.

Altunbas, Y., Evans, L., Molyneux, P. (2001) 'Bank Ownership and Efficiency', *Journal of Money, Credit and Banking* 33, 926-954.

Ayadi, R., Carbo-Valverde, S., Schmidt, R.H. (2009) *'Investigating Diversity in the Banking Sector in Europe: The Performance and Role of Savings Banks'*, Brussels: Centre for European Policy Studies.

Ayadi, R., Llewellyn, D., Schmidt, R.H. (2010) *'Investigating Diversity in the Banking Sector in Europe: Key Developments, Performance and Role of Cooperative Banks'*, Brussels: Centre for European Policy Studies.

Beck, T., Hesse, H., Kick, T., von Westernhagen, N. (2009) 'Bank Ownership and Stability: Evidence from Germany', Working Paper.

Behr, P., Norden, L., Noth, F. (2013) 'Financial constraints of private firms and bank lending behavior', *Journal of Banking and Finance* 37, 3472-3485.

Behr, P., Foos, D., Norden, L. (2015) 'Cyclicality of SME lending and Government Involvement in Banks', Working Paper.

Butzbach, O., von Mettenheim, K., eds. (2014) *Alternative Banks and Financial Crisis*, London: Chatto and Pickering.

Brämer, P., Gischer, H., Pfingsten, A., Richter, T. (2010) 'Der öffentliche Auftrag der deutschen Sparkassen aus der Sicht des Stakeholder-Managements', *Zeitschrift für öffentliche Unternehmen* 33, 311-332.

Burgess, R., Pande, R. (2005) 'Do Rural Banks Matter? Evidence from the Indian Social Bank-ing Experiment', *American Economic Review* 95, 780-795.

Carvalho, D. (2014) 'The Real Effects of Government-Owned Banks: Evidence from an Emerging Market', *Journal of Finance* 69, 577-608.

Dinç, S. (2005) 'Politicians and banks: Political influences on government-owned banks in emerging markets', *Journal of Financial Economics* 75, 453-479.

Elsas, R., Krahnen, J.P. (2004) 'Universal banks and relationships with firms', In: J.P. Krahnen and R. H. Schmidt (eds.): *The German Financial System*. Oxford: Oxford University Press, 197-232.

Engel, D., Middendorf, T. (2009) 'Investment, internal funds and public banking in Germany', *Journal of Banking and Finance* 33, 2132-2139.

Fischer, K.-H. (2005) *Banken und unvollkommener Wettbewerb. Empirische Beiträge zu einer Industrieökonomik der Finanzmärkte*, Wiesbaden: Gabler.

Fischer, K.-H., Pfeil, C. (2004) 'Regulation and Competition in German Banking: An Assessment', In: J.P. Krahnen and R. H. Schmidt (eds.): *The German Financial System*. Oxford: Oxford University Press, 291-349.

Fischer, M., Hainz, C., Rocholl, J., Steffen, S. (2014) 'Government Guarantees and Bank Risk Taking Incentives', Working Paper.

Gerschenkron, A. (1962) *Economic Backwardness in a Historical Perspective*, Boston: Harvard University Press.

Gropp, R., Gründl, C., Güttler, A. (2014) 'The Impact of Public Guarantee on Bank Risk-Taking: Evidence from a Natural Experiment', *Review of Finance* 18, 457-488.

Gropp, R., Güttler, A., Saadi, V. (2015) 'Public Bank Guarantees and Allocative Efficiency', Working Paper.

Hakenes, H., Hasan, I., Molyneux, P., Xie, R. (2015) 'Small Banks and Local Economic Development', *Review of Finance* 19, 653-683.

Hackethal, A. (2004) 'German Banks and Banking Structure', In: J.P. Krahnen and R. H. Schmidt (eds.): *The German Financial System*. Oxford: Oxford University Press, 71–105.

HLEG (2012) *Report of the European Commission's High-level Expert Group on Bank Structural Reform*, Brussels: EU Commission.

Hönig, M. (2014) 'Regulatory Impacts of the Financial Crisis on German Banks', *Revista de Economia Politica* 24, 149-183.

Illueca, M., Norden, L., Udell, G. (2014) 'Liberalization and Risk Taking: Evidence from Government-controlled Banks', *Review of Finance* 18, 1217-1257.

KPMG (2014) 'Strukturreform des Bankensektors', KMPG Newsletter Strukturreform Financial Services, February 2014.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer. (2002) 'Government ownership of banks', *Journal of Finance* 57, 265-301.

Mai, H. (2004) 'Spain's cajas: deregulated, but not depoliticized', Deutsche Bank Research, EU Monitor No. 20.

Puri, M., Rocholl, J., Steffen, S. (2011) 'Global retail lending in the aftermath of the US financial crisis: Distinguishing between supply and demand effects', *Journal of Financial Economics* 100, 556-578.

Sapienza, P. (2004) 'The effects of government ownership on bank lending', *Journal of Financial Economics* 72, 357-384.

Schmidt, R.H. (2009) 'The political debate about savings banks', *Schmalenbach Business Review* 61, 366-392.

Schmidt, R.H., Bülbül, D., Schüwer, U. (2014) 'The Persistence of the Three Pillar System in German Banking', In: O. Butzbach and K. v. Mettenheim, eds. (2014): *Alternative Banks and Financial Crisis*, London: Chatto and Pickering, 101-121 and 256-259

Schmidt, R.H., Tyrell, M. (2004) 'What Constitutes a Financial System in General and the German Financial System in Particular?'. In: J. P. Krahnen and R. H. Schmidt (eds.): *The German Financial System*. Oxford: Oxford University Press, 19–67.

Stiglitz, J.E. (1993) 'The role of the state in financial markets', Proceedings of the World Bank Annual Conference on Economic Development, Washington DC, International Bank for Reconstruction and Development/World Bank, 19-56.